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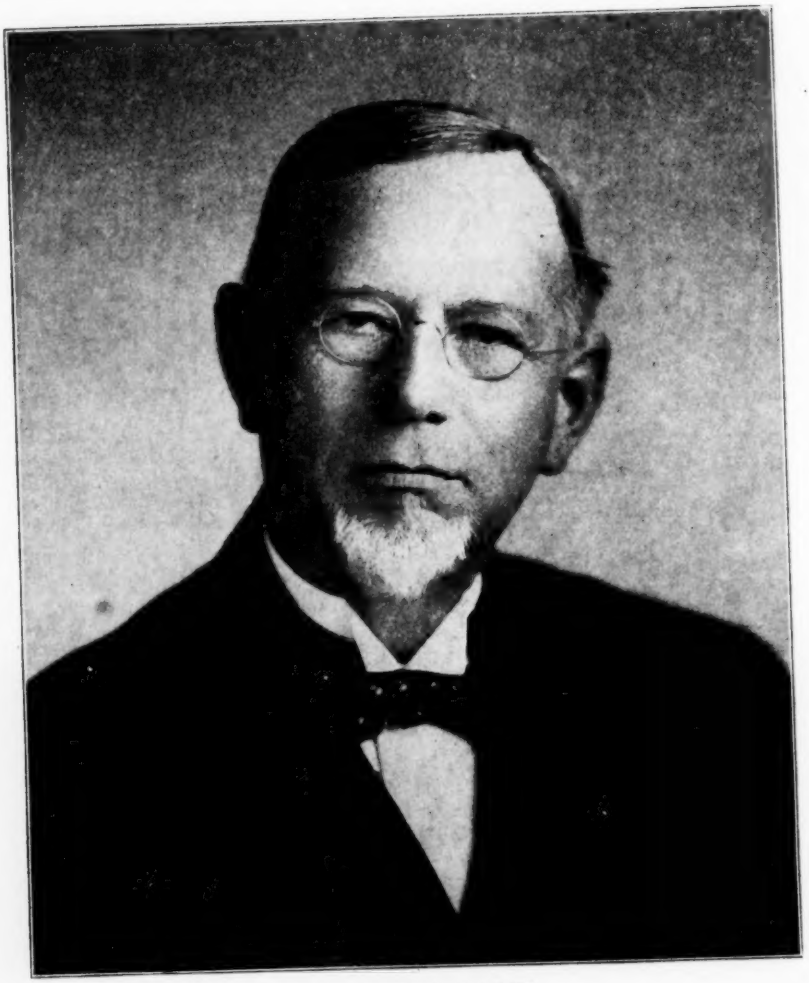
Table of Contents of this issue will be found on the last page (XVI)

AUGUSTUS GEORGE SCHLOTTERBECK

PORTLAND, ME.

Only living charter member of Maine Pharmaceutical Association, organized in 1867



A. G. SCHLOTTERBECK

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## AUGUSTUS GEORGE SCHLOTTERBECK.

Augustus George Schlotterbeck was born in Birstein, Germany, January 25, 1844. When he was ten years old, his family emigrated to this country and, arriving in New York, they temporarily located on Long Island and afterwards came to Springfield, Mass., where the subject of this sketch attended school.

His mother having died in 1858, he went to live with his uncle, George Gemuender, the celebrated violin maker, in whose workshop he was employed until 1860, when he entered, as apprentice, the pharmacy of Gustave Vivie, Son & Koehler, at 231 Grant Street. Mr. Koehler, who also was a native of Birstein, took a deep interest in the young man and in his studies of pharmacy. As Mr. Schlotterbeck states, he initiated him in preparing mercurial ointment, powdering Spanish flies, etc.

On account of the disturbed conditions, owing to the conflict between the states, the business did not require extra help, so Mr. Schlotterbeck accepted a position as relief clerk in one of Miller & Reed's stores. Mr. Reed was well pleased with his services, but not having sufficient work for him, he secured a place for the young man with Joseph Leggett, corner Avenue C and 8th Street.

February 9, 1865, Mr. Schlotterbeck came to Portland, Me., and entered the employ of H. H. Hay, taking charge of the retail department. December 22, 1866, he started in business on his own account at 501 Congress Street and conducted this store for thirty-six years with eminent success. It was in this store, in 1867, that the formation of the Maine Pharmaceutical Association was proposed, and consummated July 23rd of that year. The first officers were: *President*, H. T. Cummings, of Portland; *Vice-President*, John G. Cook, of Lewiston; *Treasurer*, M. S. Whittier, of Portland; *Secretary*, Charles K. Partridge, of Augusta; *Corresponding Secretary*, A. G. Schlotterbeck, of Portland. Dr. M. L. Porter, of Danforth, was elected secretary of the Association in 1896, and has continued in that office ever since. This year the Maine Pharmaceutical Association celebrates its Fiftieth Anniversary; the convention will be held at Kineo, June 27th to 29th inclusive.

May 1, 1887, Charles S. Foss became associated with Mr. Schlotterbeck and, the business having grown, it was incorporated February 23, 1892, as the Schlotterbeck & Foss Company, of which the subject of this sketch was elected president and treasurer and holds the same offices at the present time. On account of the increased manufacturing business, the retail department was discontinued in 1902.

Mr. Schlotterbeck has been active and interested in the Maine Pharmaceutical Association throughout its fifty years of history and remains as the only living charter member. He joined the American Pharmaceutical Association in 1896.

# EDITORIAL

E. G. EBERLE, Editor 253 Bourse Bldg., PHILADELPHIA

## "THE GOOD THAT MEN DO LIVES AFTER THEM."

THAT a scientist is not without honor, save in his own time and in his own country, is not always applicable, but it certainly is in the case of Dr. Ignaz Philipp Semmelweis, whose name and work were almost forgotten until his memory was revivified by Dr. Duka, a countryman, when he brought the name of Semmelweis to the attention of Lister at a banquet given in the latter's honor, at Pesth in 1883. The history of this unfortunate physician excited the liveliest interest of Lister, who recognized in him a true forerunner in rational antiseptic treatment, though he had evidently known little, if anything, of his success and nothing of his trials and unfortunate ending of this useful life. Since then the name of Semmelweis has been placed in "the hall of fame," and surgery of the present world war has given credit to the treatment employed by him a half century or more ago.

In some respects the lives of Lister and Semmelweis are similar, in others radically different, so also the work of the two men; both utilized the deductions of original investigations and fought the unseen enemies of disease with related weapons; Lister was supported by the scientific discoveries of Pasteur, which Semmelweis did not have for his guidance. The latter died in 1865, about the time that Lister was beginning his antiseptic studies. Briefly, soon after entering the practice of medicine, Semmelweis received the appointment to the Vienna Maternity Hospital, in 1846. Puerperal fever was then claiming a large percentage of the mothers; this observant physician not only gave his attention to cleanliness but more particularly to those attending upon the confined; many of the attendants often waited upon their patients without washing their hands. Semmelweis issued orders of cleanliness and asepsis, using chlorinated lime solution for the latter purpose. The result was that in 1848, he could report the loss by death in his department as less than one in a hundred. The jealousy, more particularly of his chief, Dr. Johann Klein, drove him from Vienna in 1849, when he came to Pesth in a like capacity and where, as far as his work is concerned, he was also successful. But here comes the difference in the character of Lister and Semmelweis; the former also had opposition and jealous enemies, but he was strong enough to ignore them, and not suffer from discouragement because others who did not understand his methods and would not become converts, made adverse reports and in jealousy antagonized him; Semmelweis went into a rage or fit of despondency if he learned of an epidemic of puerperal fever, or when others dragged down his

work to the plane of personalities. Lister lived to receive universal recognition of his work, hear and read the praises of his former doubters and enemies; unfortunate Semmelweis was bereft of reason some time before he passed away from a world that failed to appreciate his services—but succeeding generations gave him recognition.

The statement made at the beginning does not apply as well to the former as to the latter, however; though Lister was the son of an illustrious father and afterward son-in-law of a great surgeon, he was constantly hampered and himself, as well as his methods, the subjects of criticism until the evidence of the value of his work was so overwhelming that even his strongest antagonists were convicted and convinced, but nevertheless it remains a fact that England, his country, and more particularly London, was late in acknowledging Lister and his great work, and then only after the International Congress of Medical Science, held in Amsterdam in 1879, accorded him the most remarkable and unprecedented ovation ever given a medical man. When the chairman was able to secure quiet in the hall of the convention, he said: "Professor Lister, it is not only our admiration which we offer to you; it is our gratitude, and that of the nations to which we belong."

Lister always gave due credit to Pasteur's discoveries that enabled him to accomplish his great work; the climax of this acknowledgment came at Pasteur's Jubilee in 1892, on which memorable occasion Lister represented Great Britain and Ireland. Lister was embarrassed by the reception given him, when Pasteur took him by the hand, led him to the center of the platform and there embraced him; the spectators applauded and relieved their overfull hearts with sobs and tears.

To an extent this controverts the introductory of this editorial; admittedly so, but Lister was a remarkable man in every way and exceptions can be found even for rules. A reference to one of many attacks upon him will not only show that he had to contend with enemies envious of his success, but also his power in argument and restraint over his feelings. This attack was made in the *British Medical Journal* during the very year that the world did him homage at Amsterdam. The article was contributed by a fellow-professor who began his charge by disclaiming any feeling of envy or uncharitableness and then launched out into an attack of considerable bitterness, disparaging Lister's method and belittling his ability as a surgeon. The latter charge Lister dismissed with the statement that Mr. Spence had never honored him by witnessing his work as a surgeon, and regarding the other, he said, that if as a surgeon Mr. Spence was so superior to him, the fact that his (Lister's) successful results far exceeded those of Mr. Spence, could only prove more strongly the value of antiseptic surgery.

It is not only necessary for a person to know, but the important thing is the application of the knowledge, and the communication of it to others for larger

service. Herein both men were great, though Lister surpassed Semmelweis, but he had many advantages.

The thought presented is prompted by the nearness of commencement exercises in colleges of pharmacy. Students should be impressed with this important factor in their life of service; that the matter of passing an examination, while it is demanded, has comparatively little value unless the knowledge obtained is retained and made widely and continuously applicable.

There were many surgeons in the time of Semmelweis who knew of chlorine, but it was his wise application of the knowledge of its properties in conjunction with other very essential means employed by him that contributed service to humanity and saved the lives of thousands. Scheele discovered chlorine in 1774; Labarraque, in 1822, prepared the solution named after him. In *Eberle's Practice* we read in the discussion of disinfectants: "* * * * At present (1826), however, chlorine and the chlorides of lime and soda are regarded as decidedly the best disinfecting agents we possess. M. Labarraque's *disinfecting soda liquid* is a compound of soda and chlorine, and its efficacy in destroying infectious matter, has been conclusively demonstrated. * * * it is employed in surgical practice for destroying the fetor of malignant ulcers." So here in the United States, twenty years before Semmelweis came to the Vienna Maternity, the value of the preparation he employed was known and in more or less general use, but it was his observance of the cleanliness of the operators that largely made him successful, and very likely his method of practice—more than knowledge is necessary.

So also "carbolic acid" was discovered by Runge in 1834, and it was very soon thereafter employed for removing the offensive odors from drains and animal matter in the state of putrefaction, and was used by surgeons in their practice, but it remained for Lister to make successful application in surgery, aided by the purer product of Calvert, and more so by the discoveries of Pasteur. His treatise of the rationale of his practice is most interesting and shows how close an observer he was, but this presentation, even in abstract, would become too lengthy; the object of the reference is simply to impress that the ability to make right application of knowledge is equally as important as the acquisition of it, for without that qualification learning has little real value.

A final thought, and that is to show the link of pharmacy in the accomplishments of Semmelweis and Lister. The work of Scheele, Labarraque, Calvert and, more particularly, the discoveries of Pasteur contributed largely to their successful labors—they were needful; there is always an interdependence, and at the appointed time the individual comes forward who is competent to utilize the investigations of others and by the aid of his native or cultivated ability, energy and wisdom brings about the results that make of him a hero. There is no desire to dim the glory of these benefactors of humanity. Pharmacists should keep in

revered memory those in their profession who contributed lives of useful service; very often the names of pharmacists become associated otherwise, though their pharmaceutical experience may have largely influenced their later work. Whether pharmacy has been the stepping-stone to other activities or life-long occupation matters not, their records serve to encourage others to follow their excellent precepts and examples and lift others up to see higher ideals—that is the important thing. The carload of ore in Colorado may represent only the milligramme of radium in Paris, but there is power in the ore, though its potency is tremendously increased in the refined product—unquestionably that which at the last constitutes a so-called waste was essential, in one way or another, to the element.

E. G. E.

## THE ASSUMED DESTRUCTION OF TRYPSIN BY PEPSIN AND ACID.

THE recent papers by Dr. J. H. Long and Mary Hull on "The Assumed Destruction of Trypsin by Pepsin and Acid"* are valuable contributions to biological chemistry and present some interesting deductions regarding the proteolytic enzyme trypsin, the important constituent of official pancreatin, and its power to resist destruction. In an editorial comment, the abstracts from these papers are necessarily limited to the more important statements and the conclusions of the authors, but the papers themselves should receive careful study.

The important part played by trypsin, as the active principle of the pancreatic juice, in the functions of digestion and the vital force make it all the more necessary that we should have definite knowledge of its functions, activities and power of resisting destruction and that the medical practitioner as well as the chemist have a clear conception of the conditions under which it performs its distinct function in life and of its sphere of usefulness in medicine. Its peculiar action on proteids, its power to rapidly form amino-acids and the end products of its digestive action have presented numerous problems in physiological chemistry that have claimed the attention of many able investigators.

This field of research investigation presents peculiar difficulties and as these authors state: "It is easy to arrange experiments *in vitro*, in which one group of ferments may appear to be readily destroyed by another, but it does not necessarily follow from these that under the conditions obtained in the body a like result should be expected." "The stability and mutual action of ferments depend on a multiplicity of conditions which are properly balanced in the animal body, but which appear to present enormous difficulties in the duplication *in vitro*."

In previously published contributions, Dr. Long had brought out the fact, which he now again emphasizes, that trypsin may be incubated with considerable quantities of hydrochloric acid without suffering appreciable loss of strength.

The investigations described in the first of these papers cover a series of experiments *in vitro* where a number of varying conditions with reference to strength

* Journal of the American Chemical Society, August 1916, p. 1620, and January 1917, p. 162.

of acid, amount and kind of protein present and resultant hydrogen-ion concentration were considered. It had been observed by several investigators that in some cases rapid destruction of trypsin took place in the presence of acid and pepsin while in others no such destruction was observed. The present authors present evidence that the fate of the trypsin depends on the relative amount and kind of protein present. "All the results secured point in the same direction and to the conclusion that the pancreatic ferment persists through the acid incubation, provided this acid is sufficiently bound by protein to bring the hydrogen-ion concentration down to certain values." "Not only does trypsin appear to resist the action of pepsin and acid under the conditions described, but it seems further likely that it is able to bring about some degree of digestion in acid solution which is more marked with some protein than with others."

The authors point out that the prior work of several investigators "had shown that there was some degree of tryptic activity in solutions of low acid concentration and that Lindberger, in attempting to account for the protein digestion in the acid duodenal tract of the dog, had shown that tryptic digestion may go on very well in the presence of lactic acid or weak acetic acid. At that period the relation of acidity to hydrogen-ion concentration was not known." "Weak lactic acid furnished the proper medium for the purpose." "The commonly accepted view that trypsin is rapidly destroyed by acids and that it can exert its peculiar behavior only in alkaline solutions follows, in part, from the assumed alkaline character of the pancreatic juice which is able to neutralize completely the acid chyme and leave a marked degree of alkalinity. Many recent observations have shown that the alkalinity of the pancreatic juice is often less than formerly considered 'normal.' " The mixed duodenal fluid in dogs is frequently found to be not alkaline at all. It is also possible, as has indeed been frequently suggested, "that for the initial solution and superficial splitting of the protein through trypsin a greater degree of alkalinity is called for than is favorable in the subsequent deep-seated loosening of peptide bonds. If the initial hydrolysis is accomplished through the action of pepsin and acid a nearly neutral medium might furnish the optimum condition for the later cleavage."

In a prior paper, Long and Fenger had shown that the press juice of the pancreas of hogs, sheep and cattle is distinctly acid and constantly so. Recent observations of Dr. Fenger and Mr. Nelson have shown that in the juice of the duct of hogs noted immediately after killing, the reaction is as often acid as alkaline. The authors express their opinion "that there appears to be no physiological necessity for the assumption that trypsin can act *only* in an alkaline medium, or that it is readily destroyed by weak acids of a concentration of physiological importance."

Summarizing the results of their extensive series of laboratory experiments *in vitro* the authors' conclusions are "that trypsin may be incubated with HCl of $P_H = 1.5$ through half an hour or longer without appreciable loss of strength. In the presence of pepsin the tryptic power is rapidly lost. However, if sufficient protein is likewise present, the acid, in combining with it, is unable to destroy in the same degree. When the acid concentration is reduced in this manner to $P_H = 2.6$, or below, tryptic activity persists, even through several hours at the tempera-

ture of the body. This is a practical condition which very commonly obtains in the human stomach. An active tryptic ferment would unquestionably pass with the chyme, in part at least, into the duodenum where the $P_H$ value is quickly reduced to 6.5 or lower, and there be able to produce a proteolytic digestion of some degree."

The second paper deals with experiments on animals. These showed that when trypsin was not given along with the test meal the amount of nitrogen in amino combination liberated from the substrate fibrin is always minute. On the other hand, when trypsin is ingested with the meal containing some meat the tryptic activity in the aspirated liquid was very marked. The experimental data submitted give evidence that under such conditions a good part of the proteolytic power of the administered trypsin persisted after prolonged contact with acid and pepsin. "In all the animals the secretion of pepsin and acid was abundant, and from this point of view the conditions for the persistence of trypsin were not favorable. Yet, in the larger number of experiments, this latter ferment was not destroyed by the other combination where sufficient protein was present to bring the concentration of the free acid down to a certain value. Trypsin seemed to be destroyed or greatly weakened only when the acid was in excess with pepsin."

As a result of these animal experimentations, the authors' final declaration is that "these experiments appear to confirm our earlier conclusions from work done *in vitro* that trypsin, pepsin and hydrochloric acid may exist side by side under conditions which, following the ingestion of trypsin, may exist in the human stomach. It is even possible that some trypsin proteolysis may occur then in that organ when the free acid is very low from protein combination. The destruction or weakening of the trypsin is a function, probably, of the hydrogen-ion concentration."

The deductions of the authors appear to be justified by the results of their experiments and these controvert the accepted theory that has long been held and that has been commonly stated in the text-books, namely, that trypsin exhibits its digestive activity only in neutral or alkaline solutions. Likewise, do they render untenable, in its entirety, the contention that has been so broadly advanced and so energetically maintained by certain chemists, that trypsin is completely destroyed in acid medium by pepsin. Their conclusions have an important bearing upon the practical side of medicine and pharmacy as well as upon the theories of physiological chemistry.

It is stated that "these investigations were made with the assistance of a grant from the Committee on Therapeutic Research, Council on Pharmacy and Chemistry, American Medical Association." The deductions therefrom cannot be considered as being in harmony with certain views on this subject promulgated by some of the members of the same Council. It is well known how strenuously these members have criticized and opposed the administration of pancreatin along with other enzymes and dilute hydrochloric acid or lactic acid and how persistently that Association has lent its publications to the promulgation of their views. It would seem to be only fair that the readers of the medical and pharmaceutical journals, who have long been accustomed to receive literature setting forth views opposite to those now submitted by Long and Hull, should be made acquainted with this later research. While the importance of correcting fallacious theories

of biologic science is fully appreciated, it would appear that the practical application of these theories in medical practice is of paramount importance.

The use of preparations containing the mixed enzymes has been very extensive in American medical practice and many able physicians have claimed beneficial results therefrom. The problem of the pharmacist is not that of the therapeutic aspect nor that of the biologic chemist. So urgent were the demands of the Council of the A. M. A., so persistent the propaganda emanating from the same source, against such acid mixtures of enzymes "as chemical and therapeutic incompatibles" that the Committee of Revision of the National Formulary gave way to these demands and eliminated from the Revised N. F. the satisfactory formulas that had been adopted for both liquid and powder preparations of such mixed ferments and, hence, we now have no authoritative standard formulas for these extensively prescribed remedies. The proposed formulas, it is likewise to be noted, contained a small amount of hydrochloric acid, which became fixed or combined, and weak lactic acid which is now declared to "furnish a proper medium." These recent investigations would appear to substantiate the claims of the practitioner of medicine rather than those of the theoretical chemist.

The query arising from the contention of this radical wing of the Council is thus stated by Long and Hull: "Will trypsin administered by the mouth persist in the stomach and retain sufficient activity to aid in proteolytic digestion in the duodenum?" Their answer is: "It is evidently true that trypsin when given in relatively large amount and in presence of protein possesses the degree of resisting power necessary."

The nicety of the adjustment of conditions, the exact equilibrium of nature, under which the healthy body performs the functions of life cannot be duplicated in either the entirety or the exactness in the laboratory of the chemist. The ease with which bodies of such stable composition that they resist the strongest reagents and reactions of the laboratory, are broken down by changes produced by living organisms is only another evidence of the superiority of the Infinite and the limitations on human knowledge and discernment. Who can tell what is the potentiality that we denominate as catalysis and by which we attempt to explain the action of these enzymes or what are the limits of enzymic catalytic power?

It is not difficult to understand how, through the human imperfection, the results of experiments may be misleading and the judgment of the investigator perverted. This is all the more an argument why radicalism and hasty actions, which are too often based upon insufficient knowledge and incomplete experimental data, should not be permitted to displace clinical evidence and the practical exhibition of usefulness.

GEORGE M. BERINGER.

# SCIENTIFIC SECTION, AMERICAN PHARMACEUTICAL ASSOCIATION

## ADULTERATION OF WHITE BEES WAX.*

BY K. F. EHMANN.

White wax was at one time an article which was very highly adulterated. The adulterations were rather ingenious, by the addition of such things as white lead, starch and other insoluble substances. Water was very frequently incorporated for the purpose of adulteration by agitation while the wax was in a melted state.

The natural fats, such as tallow, suet and lard were used. These were easily detected by the saponification number and the lowering of the melting point. More crude adulterations have been attempted, such as the addition of paraffin, soap and rosin.

Japan wax has been employed for adulterating white wax. For the detection of Japan wax in white beeswax a 10 Gm. sample is boiled for one minute with 120 mils of water and one mil of caustic soda. If Japan wax be present a soap will immediately form, which will solidify on cooling.

Spermaceti and lard have been used, but this mixture renders the wax soft and less cohesive, and of a smoother and less granular fracture. The odor on melting is changed some by the addition of these substances.

To-day the white wax which is sold on the market is of a good quality. To prove this statement I have collected samples of white beeswax from various parts of the City of Philadelphia and examined them according to the tests set down in the U. S. P. The only point of difference was in the iodine figure, where the U. S. P. directs the use of Hübl's solution I have changed and employed Hanus' solution. In using this solution much time can be saved and greater accuracy attained. Out of the fifteen samples examined only one was adulterated, this adulteration being white lead.

The following table will show the range of the samples:

| No. of sample. | M. P. | Acid Fig. | Sap. Fig. | Iodine Fig. | Action $H_2SO_4$. |
|---|---|---|---|---|---|
| 1..... | 63° C. | 14 | 93 | 14 percent | O. K. |
| 2..... | 64° C. | 13.7 | 89 | 12 percent | O. K. |
| 3..... | 64° C. | 13 | 82 | 18 percent | O. K. |
| 4..... | 60° C. | 15 | 87 | 17.5 percent | O. K. |
| 5..... | 58° C. | 14 | 90 | 21 percent | O. K. |
| 6..... | 75° C. | 0.2 | 0.5 | 1.2 percent | No reaction |
| 7..... | 61° C. | 13 | 89 | 16 percent | O. K. |
| 8..... | 65° C. | 12 | 92 | 19.5 percent | O. K. |
| 9..... | 60° C. | 13 | 88 | 15 percent | O. K. |
| 10..... | 58° C. | 11 | 84 | 16 percent | O. K. |
| 11..... | 63° C. | 12 | 83 | 18 percent | O. K. |
| 12..... | 68° C. | 18 | 95 | 14 percent | O. K. |
| 13..... | 60° C. | 15 | 95 | 11 percent | O. K. |
| 14..... | 59° C. | 20 | 92 | 12 percent | O. K. |
| 15..... | 62° C. | 19 | 91 | 16 percent | O. K. |

*Read before Scientific Section, A. Ph. A., Atlantic City meeting, 1916.

## CORN OIL AND ITS HYDROGENATION.*

BY D. H. LACKEY AND L. E. SAYRE.

### CORN OIL AS A SUBSTITUTE FOR OLIVE AND COTTONSEED OIL.

In the investigation of this oil, the physical properties, saponification value, iodine absorption number were taken, which were as follows:

The congealing point, composition and refractive index of the three oils may be seen from the subjoined table:

| | Corn oil. | Cottonseed oil. | Olive oil. |
|---|---|---|---|
| Congealing point | —10 to —15° C. | —0 to —5° C. | —0 to —5° C. |
| Composition: | | | |
| Solid fatty acid | 27% | 32% | 15% |
| Liquid fatty acid | 73% | 68% | 85% |
| Refractive Index by Strohmert at 15.5° C. | 1.4768 | 1.4743 | 1.4698 |

The following classes of preparations were experimented upon for substitution of corn oil for olive oil: Liniments, ointments, cerates, plasters, oleates.

The determination of the constants of corn oil, obtained from the Douglas Company, Cedar Rapids, Iowa, and made by Mr. Lackey, my associate in experimental work, were as follows:

| Number. | Determination. | Values. |
|---|---|---|
| 1 | Saponification value | 188–191 |
| 2 | Iodine value (Hanus) | 115–119 |
| 3 | Specific gravity | 0.920–0.924 |
| 4 | Free fatty acids (crude oil) | 4.4% |
| 5 | Free fatty acids (refined oil) | 1.05% |

*The Determination.*—It seemed to us that the hydrogenated product might well be used in place of solid fats in various preparations and this idea led to the study of hydrogenation of corn oil. It may not be out of place here to state the general principles of hydrogenation.

Generally speaking, we may say that any liquid fat may be hydrogenated under the proper conditions. The ease with which hydrogenation takes place depends on several properties of the oil, as the degree of unsaturation (indicated by the iodine value). The higher the iodine value, the longer hydrogenation must proceed before the stearin stage is reached—which point is easily understood when we remember that a high iodine value will mean the presence of highly unsaturated bodies as linolic acid, linolenic acid or their glycerides. The ease with which an oil is hydrogenated is also affected by impurities in the oil, which may affect or poison the catalyzer.

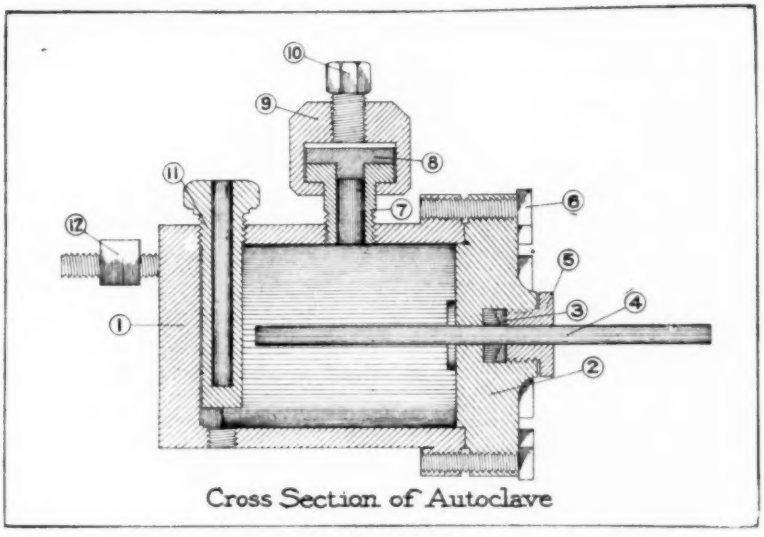
From the simplicity of the reaction, hydrogenation would seem a very simple process. But the problem is far from simple as olein or oleic acid, under the methods first tried, resisted to any material extent the invasion of hydrogen into its structure. In fact, this was not successfully accomplished until the metallic catalyzers, or hydrogen carriers, were tried.

But the process to-day has reached such a degree of perfection that plants for

* Read before Scientific Section, A. Ph. A., Atlantic City meeting, 1916.

the commercial production of "hardened" oils have sprung up all over the world. The extent of the commercial importance of this industry is well stated by Ellis when he says, "So eagerly has the oil handling world lent itself to the idea, that already the stearin market has lost its firmness and much speculation is rampant as to the nature of price re-adjustments, which perhaps are on the way. Unquestionably, hydrogenated or hardened oil has taken its place in the oil market as a staple product."

A general method may be described as follows: The process consists of the use of a suitable catalyzer; for example, a freshly precipitated nickel oxide is reduced, by passing a current of hydrogen through it, to a metallic state. This is carried on at a temperature of 360° C. The finely divided metallic nickel constitutes the catalyzer in question. The nickel, reduced as above, is dried in an at-




Cross Section of Autoclave

PLATE NO. II

1.—Main cylinder used to contain the oil under investigation.
2.—Cap or cover for cylinder No. 1—fitted to the cylinder with ground joint and held in place by twelve 1/4 inch cap screws (6).
3.—Packing ring to secure gas-tight packing around rotating shaft.
4.—Driving shaft fitted with shoulder fitted against cap with ground joint. Either wire gauze agitator or balloon flask can be mounted on the driving shaft.
5.—Packing nut.
6.—Cap screws with No. 2.
7.—Charging hole through which oil and catalyst may be introduced into autoclave.
8.—Cap for charging hole. Fitted to No. 7 with ground joint.
9.—Clamp used to hold No. 8 in place.
10.—Set screw in clamp No. 9.
11.—Thermometer well.
12.—Tee for connecting to autogenor or hydrogen cylinder.

mosphere of hydrogen and is brought in contact with the oil to be hydrogenated, care being taken that it shall not come in contact with the action of the air during the process. The mixture of oil and nickel is then brought in close contact with hydrogen through a tall cylindrical tank and in still closer contact by an adjustment to the apparatus, which causes the mixture of oil, catalyzer and hydrogen to flow through a narrow tube, the whole being kept at a temperature of from 175° to 190° C. The pressure is maintained in hydrogenation from one atmosphere, or less, to 25 pounds. Any excessive pressure is liable to cause leakage of hydrogen which is difficult to keep from issuing through the tightest of vessels. The pres-

sure used is regulated for different oils, some requiring more than others for proper hydrogenation. After the hydrogenation is effected, the mixture is pumped into a tank, heated by steam, then conducted to a filter press where the catalyzer is removed by filtration and the oil permitted to harden.

The apparatus used by us was constructed for experimental purposes only, where any quantity from 15 Cc. of oil to about 250 Cc. could be hydrogenated.

The experimental work on corn oil consisted of, in the first place, the degree of hydrogenation (indicated by melting point and iodine value) under different conditions of time, temperature, pressure, catalyzer content, etc.

The next investigation was concerned with the problem of a catalyzer, determining the rate of reaction of nickel oxide catalyzer which has undergone various degrees of reduction, in the process of hydrogenation.

It was found that the most favorable condition for the hydrogenation of corn oil, with our apparatus, was a pressure of 50 pounds, running the apparatus, or continuing the hydrogenation, for six or seven hours at a temperature of 200° C. This gave a product which had a melting point of about 36° C.

It is a question of interest as to whether hydrogenated corn oil could compete commercially with the other hydrogenated oils. In this connection we would observe that at present the price of corn oil is slightly below that of cottonseed oil. Therefore, since cottonseed oil is being successfully hardened and sold, we should be able to do the same thing with corn oil. In the second place, we may consider the ease of hydrogenation. We have run some comparative tests on hydrogenation between corn oil and similar oils of about the same iodine value and, as is seen from the following table, we may judge corn oil to be as capable of hydrogenation as any similar oil. The difference in melting points may be attributed to the fact that cottonseed oil has lower iodine value than corn oil, but, on the whole, the agreement is quite good.

| Cottonseed oil. | | Corn oil. | |
|---|---|---|---|
| Time. | Melting point. | Time. | Melting point. |
| 6 hours | 35° C. | 5 1/2 hours | 31° C. |
| 10 hours | 39° C. | 7 hours | 34° C. |
| 7 hours | 35° C. | 7 hours | 33° C. |
| 3 hours | 29° C. | 3 1/2 hours | 23° C. |

It should be stated that when nickel oxide is used a trace of this is present in the finished product, about 0.006 percent. Such an amount would be regarded as objectionable for edible purposes although many investigators claim that nickel in minute amounts in foods has no toxic effect. Nickel-lined vessels have been used for years, and food prepared in them contains two or three parts per million, yet no injurious effects have resulted. This is as much as the average oil prepared by nickel catalyzers contains.

The presence of this amount of nickel would certainly not interfere or be objectionable in making most of the unctuous preparations. The one merit this hydrogenated product seems to have is its keeping quality. We believe we have proven the keeping qualities of hardened corn oil since we have samples of the hydrogenated product which have kept their sweet flavor and have not become the least rancid in over a year. This hydrogenated product has kept better even than a similar sample of cottonseed oil although it was subject to various changing conditions such as light, oxidizing action of the air and great changes of temperature.

It is worthy of note, in closing, that besides edible products, hydrogenated oils may be used for any purpose to which solid fats are put, as soap making, lubricants, etc.

Since liquid fats are essentially cheaper than natural fats and since it is possible to cheaply harden them to any desired consistency, hydrogenation is rendered especially attractive to soap manufacturers. The soap manufacturer has now at his disposal the means of utilizing low grade material in substitution for more costly stock. It is now possible to make hard soap, with the aid of hydrogenation, from oils which formerly gave only soaps of soft consistency.

According to the Japanese chemist, Tsujimoto, the odor of fish oil is due to a very unsaturated fatty acid called clupanodonic acid, $C_{18}H_{28}O_2$, and not to so-called impurities as is commonly supposed. Thus we see that by the addition of eight hydrogen atoms it is possible to produce stearic acid. When hardened down to an iodine number of 50, fish oil has the consistency of hard tallow and has lost all of its odor of fish and, in fact, has destroyed most of the fishy taste. Therefore, this would make a satisfactory soap stock and hardened fish oil is, in fact, extensively used in Europe for soap making.

Not so very much work has been done on the utilization of hardened oils for soap making in this country, but in Europe the industry is becoming quite extensive.

For a detailed discussion of soap making, including formulae, etc., utilizing hardened oils, the reader is again referred to Ellis' book, "The Hydrogenation of Oils."

On the subject of hardened oil for lubricants, it might be said that the physical and chemical properties of hardened oils, especially fish oil, indicate that these products could be well used in the manufacture of lubricants.

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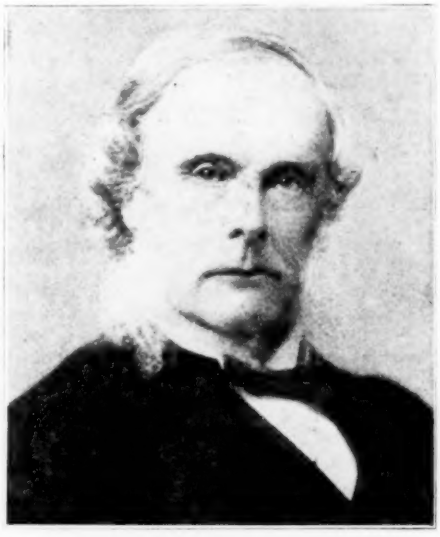
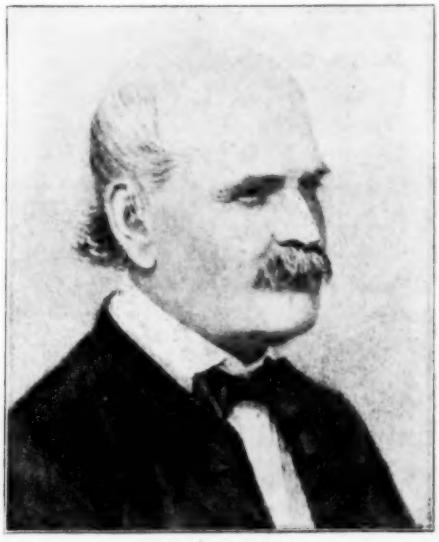


JOSEPH LISTER, M.D.
(Joseph, Baron Lister)

Born in Upton Lane, West Ham, England, April 5, 1827. Died February 10, 1912, at Walmer; buried in Hampstead (London) cemetery, where a plain, grey granite slab covers the grave.



IGNAZ PHILIPP SEMMELWEIS, M.D.

Born Ofen, Budapest, July 1, 1818. Died August 13, 1865; buried in Budapest where a monument has been erected over his grave by this municipality. The photograph is from *Semmelweis' Gesammelte Werke* by Dr. Tiberius von Györy

# SULPHUROUS ACID, ITS EXTEMPORANEOUS PREPARATION.*

BY OTTO RAUBENHEIMER.

Acidum Sulphurosum, U. S. P. VIII, although it has been deleted from the Pharmacopoeia and has *not* been admitted into N. F. IV, but will be relegated to the A. Ph. A. Recipe Book, is occasionally prescribed owing to its antiseptic and germicidal properties, both for internal and external use.

The principal trouble with this acid is that it is very unstable, and, when the pharmacist is called upon to dispense it, he finds, to his sorrow, that his stock has deteriorated and has oxidized to a diluted sulphuric acid. Such was the case when I received a prescription sometime ago for Acidum Sulphurosum. The U. S. P. VIII gives a most excellent process together with minutest details, occupying a total of one and a half pages, for this preparation of this acid by the reduction of sulphuric acid with charcoal. However, for the preparation of a small amount, for instance, 50 or 100 mils, it is hardly practicable for the pharmacist to put together the apparatus required by the U. S. P.

It, therefore, occurred to me that a method for the extemporaneous preparation of sulphurous acid would be of help to the pharmaceutical profession.

## EXPERIMENTS AND STOICHIOMETRY.

*Process No. I.*—A modification of the Fothergill process, namely, liberation of $SO_2$ and precipitation of potassium bitartrate by the double decomposition of solutions of potassium sulphite and tartaric acid. In the reaction, which I present, the first line gives the chemical equation, the second line contains the molecular weights of U. S. P. VIII, as the work was commenced and finished before the ninth revision was published, and the third line contains the number of grammes and sufficient distilled water to produce 100 Gm. of Acidum Sulphurosum.

$$(K_2SO_3 + 2\ H_2O) + 2\ H_2C_4H_4O_6 = 2\ KHC_4H_4O_6 + 3\ H_2O + SO_2$$

$$192.95 \qquad \frac{2 \times 148.92}{299.84} \qquad 63.59$$

$$20\text{ Gm. plus } 30\text{ Gm.} = 6.4\text{ Gm.}$$

*Process No. II.*—Decomposition of calcium sulphite with diluted sulphuric acid.

$$(CaSO_3 + 2\ H_2O) + H_2SO_4 = CaSO_4 + 3\ H_2O + SO_2$$

$$155.03 \qquad 97.35 \qquad 63.59$$

$$16\text{ Gm. plus } \quad 98\text{ Gm. Diluted } H_2SO_4 = \quad 6.4\text{ Gm.}$$

Filtering is required in both these processes. The chief objection, however, is, that neither potassium nor calcium sulphite are generally in stock in most pharmacies.

*Process No. III.*—Sodium sulphite, both crystallized, as well as anhydrous, is practically in every drug store and my efforts were directed to use this chemical in the extemporaneous preparation of sulphurous acid.

In examining the excellent Index of Chemical Abstracts for 1915, I find under "Sulfur Dioxide"—"Preparation of Solutions," the very thing I have been looking for, although hidden in such a way that it is rather difficult to find.

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* Read before Scientific Section, A. Ph. A., Atlantic City meeting, 1916.

The Abstract in Chemical Abstracts of August 20, 1915, p. 2286, is entitled: *Extemporaneous Preparation of Solutions of Sulfur Dioxide.* Cheney, Boll. chim. farm., vol. 54 (1915), 359:

In a bottle of 250 Cc. capacity, provided with a ground glass stopper, are placed 5.7 Gm. dry $Na_2SO_3$ and 18 Cc. diluted HCl. The bottle is then quickly stoppered and set in a cool place. The contents are shaken cautiously so as to facilitate solution of the salt. When effervescence has ceased, 25 Cc. $H_2O$ are added and the mixture is shaken for several minutes. The volume of the final solution is 40 Cc. and the $SO_2$ content is 6 to 6.4 percent.

FALLACIES IN ABSTRACTS.

In glancing over this abstract my suspicion about its correctness was aroused when I added the given quantities, *i. e.*, 5.7 Gm., 18 Cc. and 25 Cc. are supposed to produce a total of 40 Cc.

Not having the latest edition of the Italian Pharmacopoeia on hand, I learned from my friend, Martin I. Wilbert of the Hygienic Laboratory, Public Health Service, Washington, D. C., that the Diluted Hydrochloric Acid in that standard contained 8.07 percent by weight of HCl. I prepared this strength acid and then made a number of experiments, based on a total volume of both 40 and 100 mils, with the following results:

| $Na_2SO_3$. | 8% HCl. | Volume. | Add $H_2O$. | Total volume. |
|---|---|---|---|---|
| 5.7 Gm. | 18 mils | 20 mils | 20 mils | 40 mils |
| 14.25 Gm. | 45 mils | 50 mils | 50 mils | 100 mils |

I noticed that this reaction was accompanied by the generating of *heat*, while the generation and particularly the absorption of gases produces *cold*, and my suspicion was again aroused. The chemical reaction and molecular proportion is as follows:

$$Na_2SO_3 \text{ plus } 2\ HCl = 2\ NaCl \text{ plus } H_2O \text{ plus } SO_2$$

$$125.25 \qquad \frac{2 \times 36.18}{72.36} \qquad 63$$

or 14 Gm. plus 72.36 Gm. Diluted HCl = 6.3 Gm. in 100 mils

90% 10%

Sodii Sulphis Exsiccatus has been admitted into U. S. P. IX in place of the crystallized salt, with a purity rubric of not less than 90 percent of $Na_2SO_3$. The Italian formula calls for 45 mils of 8 percent HCl which is the equivalent of just 36 mils of 10 percent HCl, which is exactly one-half of the requirement. The Italian chemist consequently gets the following reaction:

$$Na_2SO_3 \text{ plus } HCl = NaCl \text{ plus } NaHSO_3$$

$$125.25 \quad 36.18 \qquad 103.35$$

The $SO_2$ which is evolved combines with the sodium sulphite to form a bisulphite. Instead of calculating his result as $NaHSO_3$, the Italian author reports that the finished product contains from 6 to 6.4 percent of *free* $SO_2$. Another proof that it is absolutely necessary to base the calculation upon the chemical reaction which actually takes place!

WORKING FORMULA.

During the past few months I made over 50 experiments of 100 mils each, which were all checked by volumetric assays. In my work, I reached the following conclusions:

1. To bring up the finished preparation to a volume, namely, 100 mils, rather than weight.

2. To use the more permanent Exsiccated Sodium Sulphite, especially as same is now official in U. S. P. IX.

3. To pour the diluted hydrochloric acid on top of the sodium sulphite, as less $SO_2$ is lost, than when the reverse is done.

4. To keep the bottle cool during the process, as cold greatly helps the absorption of $SO_2$.

The following working formula I have found to produce a full strength Sulphurous Acid:

| | |
|---|---|
| Exsiccated Sodium Sulphite..... | 14.5 Gm. |
| Diluted Hydrochloric Acid..... | 75.0 mils |
| Distilled Water, a sufficient quantity, | |
| To make | 100 mils |

Place the salt in a 250 mil glass-stoppered cylinder, or bottle, which is graduated at 100 mils. Quickly add the acid, previously mixed with 20 mils of water, stopper and put in a cool place, for instance, under running water. Shake occasionally, and, if necessary, add water to make 100 mils.

Sulphurous Acid can, in this manner, be freshly prepared when wanted in a few minutes. This process produces a product which contains about 6 Gm. of $SO_2$ in 100 mils.

### ASSAY.

The regular iodometric volumetric assay was employed as follows:

To 25 mils of tenth-normal iodine V. S. in a glass-stoppered flask, 1 mil of the sulphurous acid is added, the mixture agitated and allowed to stand a few minutes. This is then titrated with tenth-normal sodium thiosulphate V. S., using starch T. S. toward the end of the reaction. The number of mils of the iodine V. S. decomposed by the $SO_2$ are thus determined, and this figure multiplied by the factor gives the number of grammes of $SO_2$ in 1 mil of Acidum Sulphurosum. This multiplied by 100 gives the weight in volume percent.

The acid prepared without application of cold assayed from 5.1516 to 5.8512 w./v. percent of $SO_2$. When cold or running water was used then it assayed from 6.042 to 6.678 w./v. percent of $SO_2$, which proves beyond doubt the beneficial influence of cold in this reaction.

### DETERIORATION.

Sulphurous Acid deteriorates very rapidly and within one month will assay only one-half the amount of $SO_2$. For this reason it should be freshly prepared.

### PRESENCE OF SODIUM CHLORIDE.

The acid prepared by this method will contain about 12 percent of sodium chloride, but I doubt if any serious objection can be made on account of this either for internal administration or for external application. Otherwise Process No. I or No. II can be used for the extemporaneous preparation of sulphuric acid.

As a result of the work on this subject, two points of great importance are noteworthy.

### DANGER IN FOREIGN FORMULAS.

Whenever a formula is abstracted from a foreign source the careful investigator or experimenter should make sure of the strength of the ingredients, especially the chemicals, as they may differ considerably from the standards of the U. S. P., as again exemplified by the diluted hydrochloric acid of the Italian Pharmacopoeia which contains only 8 percent of HCl.

### STANDARDS FOR ARTICLES DELETED FROM U. S. P. AND N. F.

A great many preparations, drugs and chemicals have been deleted from the U. S. P. and have been admitted into the N. F. Consequently their standards are taken care of. But how about a few articles, for instance, Sulphurous Acid, which have been completely deleted? It seems to me that the last standard should hold good. *I would suggest that the Preface of the U. S. P. should contain a statement to that effect.*

### CONCLUSION.

I hope that this formula for the extemporaneous preparation of Acidum Sulphurosum will be of benefit to the pharmaceutical profession. If, however, the average pharmacist is too slow to use this process, then no doubt some up-to-date manufacturer will accommodate him by placing a package on the market containing a bottle of sodium sulphite and another of diluted hydrochloric acid together with directions. The author is not looking for any royalty!

COLLEGE OF JERSEY CITY,
DEPARTMENT OF PHARMACY.

### ABSTRACT OF DISCUSSION.

PHILIP ASHER: I am glad Professor Raubenheimer brought up this point. There is only one thing in my mind, and that is regarding the stability of the sodium sulphite. I have had a great deal of trouble in getting a sodium sulphite that would hold up, but he makes mention of the fact that the U. S. P. calls for an anhydrous salt. I would like to ask him if he has tried to find the strength of the sodium sulphite after it has stood for some time.

C. H. LAWALL: That has already been answered by Professor Clark's figures in which he says that the anhydrous salt is practically stable.

L. F. KEBLER: Dr. Raubenheimer referred to the use of sulphur dioxide. There are several proprietary products on the market that are sulphurous in character—namely, one that is called "Microbe Killer" and that is supposed to be good for everything on the face of the earth. I would just like to call attention, in this connection, to one point, and that is that some of the claims made by these people are substantiated by medical literature, and in fairly well recognized and accepted literature. This is due to the fact that this literature enumerates everything for which the particular article has ever been recommended and used, and it either places the authority in a very embarrassing position, and so also the practitioner. For instance, several books recommend sulphurous acid as a treatment for tuberculosis, and one of our well-known chemical friends said some years ago that it was an excellent agent for the treatment of tuberculosis. There is nothing in it. About the keeping of dry sodium sulphite. Sodium sulphite, on the market, is about 90 percent dry, and it does keep.

# SECTION ON EDUCATION AND LEGISLATION, AMERICAN PHARMACEUTICAL ASSOCIATION

## PUBLICATION OF POTENT DRUG CONTENT IN ALL READY-MADE MEDICINES. IS IT DESIRABLE?*

BY JOHN A. LEVERTY.

Provision No. 2 for the draft of a Modern Pharmacy Law as proposed by the Voluntary Conference operating under the Section on Education and Legislation of the American Pharmaceutical Association, presents a tentative proposition for your consideration.

Inasmuch as the several propositions are to be presented to the various state associations for consideration with the purpose in view of eventually becoming part of the statutes governing Medicine and Pharmacy, the general operation of any or all of these proposals must necessarily be in the very distant future.

It would therefore seem apparent that the primary effort should be made to have this with several of the other provisions become a federal requirement, thereby necessitating the passage of adaptations by every state.

In the minds of the vast majority of the laity, the appearance upon the label of a content whether potent or non-potent, has absolutely no significance.

To demonstrate this point, a daily publication in one of our largest cities devotes a portion of its valuable space to health hints from the viewpoint of a supposed expert.

Some weeks ago I chanced to call at the home of a friend of whom it might be said enjoys the reputation of being well educated; incidentally principal of one of our largest public schools, a close student of the health hint column and apparently well versed in the action upon the human system of the health-giving constituents of food products, adulteration, misbranding, etc.

After listening to a rather lengthy dissertation upon the subject, I asked to see the recently purchased bottle of Extract of Vanilla and much to the consternation of my student of pure food products found the preparation to be a Vanillin compound; the label upon the bottle having attracted no attention or could its purpose be interpreted.

Still another instance as to the effect upon the laity of the publication of a content, and possibly a bit more amusing, can be traced to an interpretation by the Food and Dairy Commissioner of a section of our Food and Drugs Act.

Actuated by a desire that the public should not be imposed upon in purchasing any article enumerated in the food and drug list coming within the jurisdiction of his department, he promulgated a ruling to the effect that at all soda fountains where syrups fortified with $^1/_{10}$ of 1 percent of sodium benzoate were dispensed, a card bearing a statement to this effect should be prominently displayed.

* It was the intention of Chairman Freericks to have this paper read at the time Provision No. 2 of the Voluntary Conference on Model Pharmacy Laws was discussed, but the reporters records do not show that this was done, hence the paper is separately printed.—Editor.

Shortly after the card's appearance in one of our progressive pharmacies, a patron of apparently more than ordinary intelligence inquired as to the variety of syrups the notice referred to and selecting one of those enumerated, consumed it with great satisfaction, favorably commenting upon the beverage and inquired as to whether this particular kind of syrup could be obtained at all drug stores.

While the incidents herein do not deal with potent drug content it is fair to assume that the appearance upon the label of any drug content, irrespective of its potency, would receive no more serious consideration.

It is not an uncommon occurrence for a prescription containing a potent drug, copied from the pages of "Diagnose Your Own Ailment," "Be Your Own Physician," or some similar publication, to be presented to the pharmacist for compounding. In the majority of cases no amount of persuasion avails.

When one considers the popularity of some of our nationally used proprietary and semi-proprietary medicinal compounds containing approximately the average dose of potent drug content to the teaspoonful, single tablet or pill, and as often as otherwise sufficient quantities are taken at one time to bring the dose to the supposed maximum without serious result, it is well within the realm of imagination to believe that the self-medicator is the favored child of an all-seeing Providence.

This being true, it would seem that the initial effort should be made along educational lines that will convey to the mind of the public the dangers of potent drug medication.

The proper conservation of public health and safety should be the only consideration given to the measures relating to medicine and pharmacy. It is an extremely happy thought that through the untiring and consistent efforts of the pharmacists of this country, laws conserving public health and safety are upon our statute books. Inadequate though they may be, radical changes should not be attempted until such time as measures can be formulated that will place equal responsibility and restriction upon medicine and pharmacy in all its allied branches; these provisions made so specific that an interpretation will be dependent upon the wording and absolute intent rather than upon rules and regulations promulgated by officials unfamiliar with the needs and requirements and at the instigation of an individual or organization influenced by the desire to bring relief to one branch while imposing unwarranted and harrassing restrictions upon another.

If it is deemed essential that a record be kept of all packages of medicines containing the isolated active principle of a potent drug, it would seem equally essential that the use of such principle as a content should not be permitted except in preparations and medicinal compounds distributed upon the prescription of a regularly licensed physician or dentist, purposely omitting the veterinarian, as the pernicious practice of the veterinarian's prescribing for human ailment should not be tolerated.

The detail connected with the keeping of a record could be reduced to the minimum and satisfied by the corresponding numbers upon the prescription and container.

The keeping of the record of the disposal made of so-called patent medicines, the use of the isolated active principle being permitted would entail no small amount of time and effort which together with the present federal and state record-

keeping requirements would necessitate the employment of an efficiency expert for this purpose alone.

That there is urgent need of legislation as suggested in the provisions presented by the Voluntary Conference is further evidenced by the latest periodical attack on the retail pharmacists by the Technical Assistant of the Division of Pharmacology of the Hygienic Laboratory of the U. S. Public Health Service.

This report would occasion no serious thought were it not for the fact that the reports emanating from this department are distributed among those whose influence is deemed sufficiently powerful to retard at least any effort toward legislation affecting their individual interests.

A close analysis of the report and the statement contained therein, that, "this variation in purity and strength of widely used drugs and preparations is a vexation to the physician and a menace to the patient" may well give rise to the question of sincerity of purpose.

It says: "The risk of placing too much reliance on what can be accomplished by state control alone without putting a proper amount of responsibility for the purity and strength of medicines where it rightfully belongs—on the pharmacist or druggist who sells or dispenses." No reference being made to the physician who dispenses and sells or to the claims made by close students of conditions that 65 percent of the medicines consumed by the American people is distributed by dispensing physicians, the standard of strength for which, though in many instances questionable, has never been the subject of any report from this important branch of government service. Further, out of a total of 2872 samples collected from five states a general average of 30.5 percent was rejected. An analysis of the list of widely used drugs and preparations examined, shows that for $33^1/_3$ percent of these the pharmacist should not be compelled to assume the responsibility as to purity and strength.

From these deductions it can readily be seen that the proportionate share of the pharmacist's offense, $33^1/_3$ percent of the general average of 30.5 percent, approximates 10 percent.

Closer scrutiny suggests why medicines when given for their physiological effect are frequently disappointing in expected results or the reverse; in the latter instance producing secondary manifestations of drug intoxications. Once more it might be said that those taking medicine are the favored children of an all-seeing Providence. What would be the result if this selected list of drugs was up to the required standard!

The concluding statement to the effect, "that the laws designated to regulate the practice of pharmacy and to restrict the distribution of potent drugs to especially trained and capable individuals are ineffective and sadly out of keeping with present-day needs and that efficient and active control of drugs and their preparations can be exercised only by the dispenser or distributor of medicines to the consumer," is absolutely true. But why place upon the pharmacist the entire responsibility for the dispensing and distribution of medicines to the consumer?

If the author be sincere in the statement and the organization which he so ably represents be strictly in accord with his expressions, the purpose for which this Voluntary Conference was originally created is approaching the goal.

With the members of the American Medical Association a unit in support of

measures pertaining to medicine and pharmacy and all allied branches, the proper conservation of public health and safety will be positively assured, since the measures proposed by the Conference were formulated for this express purpose.

In conclusion, permit me to suggest that the chairman take under consideration the advisability of ascertaining the mind of the medical profession upon these propositions in their entirety, as experience has served to make plain that the real opposition to effective and sufficient control of the distribution and use of drugs and medicines is found with part of the medical profession or those allied with them.

## PARAFFIN TREATMENT OF BURNS.

In a British War Office Departmental circular, part of which was reprinted in the Journal for March, page 335, the statement is made that Paraffin No. 7 has been giving better results than Ambrine. The method of application is given by Albert Gray, Chairman, in London, of the French Wounded Emergency Fund, in a letter to the *Outlook*, and printed in the number of March 21, 1917, page 522.

"The paraffin treatment is begun at the first dressing; very exceptionally in very septic burns the paraffin is replaced by hot boric fomentations for two days after two days of paraffin treatment. The burn is washed with sterile water and dried. The drying is accomplished by placing a dry piece of gauze over the burn. If an electric drying apparatus is available, such as is used by a hairdresser for drying hair, it forms a convenient method of drying the burn. The burn is now covered with a layer of paraffin at a temperature of 50° C. No. 7 Paraffin has a melting point of 48° C. The temperature may be estimated by waiting till the wax shows a solidifying film upon the surface. A broad camel's hair brush has been found to be a rapid and painless method of applying the paraffin. A spray may be used, but sprays get out of order, are troublesome to use, and the dressing takes longer. In theory a spray should be used in order to prevent any damage to the epithelium. In practice we have found that a brush skillfully used is sufficiently satisfactory; the brush allows the paraffin to be applied at a lower temperature.

"A thin layer of cotton-wool cut the same size as the area of the burn is placed over the wound after the first layer of paraffin has been applied. This layer of wool is covered with a second layer of paraffin; the wool is cut in thin sheets and pressed between layers of wool. The dressing is completed by applying wool and bandage. The burns are usually dressed daily. In the later stages, when the burn is clean and only a small amount of pus is formed, the dressing is changed every forty-eight hours.

"Blisters are not interfered with in any way at the first dressing; the paraffin is applied after washing the burn. Sloughs usually separate after a few dressings. The separation of sloughs is accelerated by applying a layer of jaconet over the wool and paraffin beneath the wool and bandage dressing.

"The treatment of burns by paraffin must not be discontinued in the latter stages. The substitution of ointments or fomentations is most strongly contra-indicated. Cases have come under our notice in which the good results of treatment have been entirely negatived by unsuitable treatment applied in the later stages. The newly formed skin is easily destroyed by fomentations. Paraffin must be continued until the burn is sufficiently healed to permit of any dressing with boric or talc powder."

# COÖPERATION BETWEEN STATE MEDICAL AND PHARMACY BOARDS—DRUG COMMISSIONERS ACTING UNDER THEIR JOINT AUTHORITY AND SUPERVISION.*

BY E. H. THIESING.

Provision No. 8, as submitted by the Voluntary Conference for Drafting Modern Laws Pertaining to Pharmacy, has been of very great interest to me. It seems to contain food for much earnest thought. It would open up the way for mutual and better understanding between Medicine and Pharmacy, and it carries the possibility of speedy and satisfactory results along that line.

As I understand this provision, it proposes that the enforcement of all laws pertaining to the distribution, sale and use of drugs shall be subject to the control and supervision of the State Medical and Pharmacy Boards, jointly. I note particularly that the authority to be vested shall be equal in every respect, so that the power of one board shall not be greater than that of the other. The provision includes, that, under the joint authority of the two boards, there shall be created the office of a Drug Commissioner, with whom shall directly rest the enforcement of all of the laws in question.

Of course, in any discussion of such a proposal at this time, it will serve no purpose to regard details of operation; it will serve no particular purpose now to consider possible limitations and restrictions; nor will it serve a particular purpose to dwell upon ways and means. The real question is as to whether it is advantageous and in public interest to have medical boards and pharmacy boards joined in the enforcement of drug laws. Considering only for the present that one particular question, it does not seem possible that the contrary may be argued with any show of reason, though, of course, I am not unmindful of the fact that many whose interests are primarily centered in the advancement of pharmacy strongly urge that the enforcement of all drug laws should be in the hands of pharmacists.

Looking at the matter from the viewpoint of the public interest primarily, and that of medicine and pharmacy in so far as they serve the general public, it must be admitted that State Boards of medicine and of pharmacy are intended purely to be representative of the public in their relation to medicine and pharmacy. They constitute the official public representatives. They owe their existence to the fact that public supervision is necessary, and because it has been recognized that proper public supervision can be exercised only by those who have been specially fitted and qualified, that is, by those who follow the callings in question. It seems to me that entire public concern in the distribution, sale and use of drugs is centered in having proper control and supervision by those who for that purpose have been selected to represent the public. Control and supervision by the medical board alone, if such might even be contemplated, must immediately appear to be incomplete and insufficient, because medical men are not trained in the manufacture of drugs, nor do they have thorough knowledge regarding practical details which concern their keeping, purity, distribution and sale. On the other hand, pharmacists, as such, lack qualifications which are properly found with the medical men, and which are equally essential in a particular, efficient and correct

* Read before Section on Education and Legislation, A. Ph. A., Atlantic City meeting, 1916.

enforcement of drug laws. By combining the knowledge of both professions to the common end of proper control and supervision over the drugs, we bring together all who are specially adapted for the exercise of this public function.

Different expedients have been adopted in different states for the proper enforcement of drug laws. In some states supervisory power seems to be in the hands of medical men, usually as they constitute boards of health; in other states, the supervisory power rests more or less vaguely with boards of pharmacy; while in still other states the supervisory power is as far removed from its correct place as is the farm and cow shed from the hospital and pharmacy. Where supervisory power is in the hands of medical men, there is great opportunity for the exercise of prejudice and injustice, sure to result in friction and discord, and weighed down with a load of suspicion.

Where the enforcement is with pharmacists, in whose hands it no doubt more correctly should rest, there is equal opportunity for discord, because so many medical men do practice pharmacy, whether right or wrong. Where the enforcement rests with those who neither represent medicine or pharmacy, it presents opportunity not only for discord and real public harm, but is made the plaything of politicians who look for political advantage. With few, if any, exceptions the enforcement of the drug laws is not carried on to best serve the public welfare, in which both medicine and pharmacy are so vitally interested. Let medicine and pharmacy join in the exercise of this function which so peculiarly belongs to them and really compensating results will be produced.

Looking beyond the primary purpose which must underlie all law and its enforcement, that is, the general public welfare, the most wholesome possibilities may be found for a more harmonious working together. Unity of action, mutual understanding, that is, a better understanding between physician and pharmacist, can not now be secured by the coöperation and getting together of the individual members of the profession; many little things, and big ones, too, tend to prevent that, but through the understanding of individual representatives, there may be such needed understanding secured for those who make up the entire professions. Conditions now exist which do not give opportunity for bringing together in any manner the larger part of the two professions. Good-will and the creation of confidence in each other by individuals of the two professions, instead of tending toward a widening circle, rather work for even greater isolation. What pharmacy needs to-day and what the public needs, because of the needs of pharmacy in this respect, is a thorough-going, harmonious coöperation and understanding with medicine; and any method which will serve to bring closer together the official representatives of medicine and pharmacy is bound to reflect upon the two professions as a whole. Correct tactful approachment to go beyond the individual and the individual sphere can be opened up only as between the leaders of the two professions, and admittedly such leaders, such real representatives must largely be found in the representative colleges and in the respective official boards. Bring together the representatives of medicine and representatives of pharmacy as they constitute the respective state boards, and wonderful progress will have been made toward that mutual understanding and respect which now is so greatly lacking.

I earnestly bespeak a most thorough consideration for the proposition to join State Medical and Pharmacy Boards in the enforcement of drug laws.

# THE HOUSE OF DELEGATES, AMERICAN PHARMACEUTICAL ASSOCIATION

## MINUTES OF FINAL SESSION.*

The final session of the House of Delegates was called to order by Chairman Hynson at 11.15 A.M., September 8, 1916, at the Hotel Chalfonte, Atlantic City, N. J.

The minutes of the previous sessions were read in abstract by the secretary.

SECRETARY HOSTMANN: Usually resolutions from this House are referred to the Council, but as there is no meeting of the Council before the final general session of the Association, anything we do here will have to go to the general session instead of to the Council.

Resolution number one: "Resolved that the House of Delegates recommends the adoption of the following amendment to the by-laws of the Association 'That there be and hereby is created a House of Delegates to have and exercise such functions as may be hereafter specified by the Association.' "

In explanation I may say that I submitted this amendment to the general session that after we act upon it, this afternoon it may be brought up at the general session. The idea of this resolution is to make the House of Delegates a by-law body instead of a resolution body. At present the House of Delegates exists by resolution and can be wiped out by resolution.

THE CHAIRMAN: This resolution was offered by Mr. Hostmann because it was necessary to get it before the general session that it could be acted upon at the next session of the House of Delegates, and Mr. Hostmann has explained to you why it is desirable to make the House of Delegates, if it is to be anything, a part of the Association; creating the House of Delegates by by-laws rather than, as it now stands, by resolution. Would you like to endorse this idea?

N. P. HANSEN: I move you the resolution as read be adopted by the House of Delegates.

H. V. ARNY: I second the motion.

W. C. ANDERSON: Mr. Chairman, before that motion is put, it seems to me this is not the proper procedure; if the House of Delegates is not a needed body, if it does not serve any good and definite purpose, we had better not make it a standing body of the Association and rather than make it a part by law, that the House of Delegates should be one of the sections, as we may say, of the organization, or a regular part of the parent organization and then proceed to designate some power for the House of Delegates. We had better see if we can find something for the House of Delegates to do under resolution and, if there is no good purpose it is serving, we had better not make it a part of the parent body. Therefore, I am opposed to this resolution. We have been trying now for three years, I think, to find out just what service the House of Delegates can be to the American Pharma-

* For reports of other sessions see p. 185, February issue and p. 281, March number of the JOURNAL.

ceutical Association. As originally proposed, it was intended that it should facilitate the work of the general organization, should take the work from the general session, somewhat, and, perhaps, from some of the sections; but what particular line of work the House can do that does not belong to some of the sections of the American Pharmaceutical Association has not been determined. Therefore, I believe we should not attempt to take the House of Delegates into the regular organization by a by-law as this proposes.

H. V. ARNY: Mr. Chairman, the object of my seconding this motion was exactly in accord with what Dr. Anderson has in mind, although we seem to be talking on the opposite side of the question. The real question is, as I understand it, "Is this House of Delegates worth anything or is it not?" If it is worth anything, it should be treated better than it has been in the past. If it is worthless, it should be abolished, and the only time to bring that squarely before the Association is at a general session, and the only way for us to do, even though we may not approve of it at this particular moment, is to vote this resolution as it is. The real reason why this resolution is so worded is the fact that there are no less than two bodies which are considering this exceedingly important subject of the House of Delegates. I think both bodies and every member here agree on one point, absolutely—either let us abolish it or let us make it worth while. Now these two bodies which are wrestling with it are a committee of this House and a committee on the President's address. Since in both of these bodies the selection has been very carefully made—on both committees our friend, Dr. Beal, who devised the House of Delegates, is represented—it strikes me that we are entirely within our rights in passing this resolution to bring the matter squarely before the general session. That is my understanding of the situation. If I am wrong I would like to be corrected. Let us either abolish it or give it something to do.

N. P. HANSEN: Mr. Chairman, I endorse the suggestion that has just been made. The House of Delegates should have a more responsible position in the Association or should be relegated without any. There is only one way of trying it out and that is just as has been said, to bring it squarely before the general session. If you want any action you should have it in the parent body, because it does have and does exercise authoritative action in the matter. It has authority to do that. It is a good thing for us to know whether or not we are actually of any value, any worth, or can render any service. If we are of any worth or value and can render service, we are glad to do it, pleased to do it. If we have no functional responsibilities, let us know it, and to know it I think is a step in the right direction. That is why I made the motion.

THE CHAIRMAN: Any other remarks?

W. C. ANDERSON: Mr. Chairman, I agree with the former speakers that this matter ought to be brought to the general session and a decision arrived at. It appears to me that this is the wrong way to bring it before the general session, with the backing of the House of Delegates in favor of making it a permanent organization, when I do not believe there is a person in the room believes it ought to be such. Our resolution will have some effect upon that body. Can we pass a resolution here that we want this House of Delegates made a permanent organization, a part of the great organization of the American Pharmaceutical Association, and then go before that body and argue that we don't want our resolution approved?

N. P. HANSEN: May I ask you a question?

W. C. ANDERSON: Certainly.

N. P. HANSEN: Would you suggest a method or mode by which we may get before that body for instruction other than this?

W. C. ANDERSON: I would much rather take before the body a resolution adopted here to-day saying that we recommend the House of Delegates be discontinued, and then we can support what we think is right.

N. P. HANSEN: Mr. Chairman, that is the best possible answer to this thing, shall we go there to approve it or abolish it?

SECRETARY HOSTMANN: I do not presume to think for anyone else, but I would like to say for one individual that I must absolutely disagree with Dr. Anderson as to whether the House of Delegates should be made a by-law body or not. I would never have submitted this amendment if I had not thought it was absolutely necessary; if we are going to reorganize, we ought to start at the bottom. I do not believe that there has been any earnest effort made in the past three years to make anything out of the House of Delegates. The delegates have been appointed in a haphazard manner. They will not attend the meetings. The majority of them are very active in the Association and due to three or four meetings on at one time, they slight the House of Delegates. Now I claim that if the Association adopts this amendment and the House of Delegates is made a by-law body, it will be brought before these organizations, that will be given representation, in an entirely different light; delegates will attend the sessions and we will be able to impress the program committee that we ought to have meetings of the House of Delegates at such a time that the delegates can attend the sessions without neglecting other association business. My sole idea in suggesting this was to bring it squarely before the Association, whether the thing ought to be something important or continued as a joke, but I certainly think it ought to be a by-law body.

W. C. ANDERSON: I would like to offer, Mr. Chairman, a substitute for that resolution: "Resolved that it is the sense of the House of Delegates that this particular body should be discontinued."

THE CHAIRMAN: You have heard this substitute for the original motion; any remarks on the substitute? Is there a second to it?

OTTO F. CLAUS: Mr. Chairman, I will second it just to bring it before the body.

THE CHAIRMAN: It has been seconded, the substitute which means the abolition of the House of Delegates. Are you ready for the question?

EMIL ROLLER: I am a new member, appointed by my Association to attend these meetings. May I be enlightened, what was the reason that the House of Delegates was created three years ago? I mean, when this resolution was brought in to create the House of Delegates, what was the opinion at that time prevailing?

THOMAS F. MAIN: Mr. Chairman, I have always been in doubt as to whether this House of Delegates was formed for the purpose of relieving the general session of the Association or was formed in an effort to meet the procedure of the American Medical Association. Personally, I feel a good deal like Dr. Anderson. I have never been able to see how the House of Delegates has benefited the main body and I do not remember of any favorable work that the House of Delegates has done.

(W. S. Richardson takes the chair.)

H. P. HYNSON: I feel I have done about as much as one man ought to do in connection with the House of Delegates. It does not matter whether the House of Delegates has done anything or not, or whether it has served a good purpose or not; to my mind it ought to be considered from a different point of view, whether, in this great country of ours with its large geographic extent and its multitude of pharmacists as compared with those of 1860, we should not have some form of a delegate body so that the pharmacists all over the country, represented by the state associations, could be represented in a national association. It does not matter whether it is done by the American Pharmaceutical Association or not. There is no doubt but that the state associations are going to unite, just as the boards of pharmacy have united and as the faculties have united, into a national association. It seems to me that the question for us to consider now is, whether we are going to let them get apart or separated from the American Pharmaceutical Association or whether we will bring the state associations, as a great feeding body, into the American Pharmaceutical Association.

The constitution of this House of Delegates, as it now exists under Professor Beal's motion, was to give a place to the delegates who had been appointed to the American Pharmaceutical Association, who have no place in the program. He thought that it would interest them and give them an opportunity to speak, etc., or "let off steam." I have no such idea as that. I thought when I became interested in it, it is the idea that has been in my mind since I was president of our State Association in 1896, you will see it in my presidential address, that the state associations ought to be united in a delegate body; representing, as they do, about 25,000 members. I received a card to-day stating that the Iowa Association has a membership of 1917 members. Now the whole membership of the American Pharmaceutical Association is not double that, is it?

I summed up the cards stating the membership of these associations and the number was about 22,000 before I got this from Iowa which would make 25,000. It is a tremendous body and I think we ought to go slowly about this. I do not believe that American pharmacy will ever be represented or that we will ever have a body to represent all the parts and phases of American pharmacy until we unite the state associations in a delegate body.

If the American Pharmaceutical Association can take advantage of this it seems to me it would be the greatest forward step possible. I have thought it might be very easy to say that the state association members could have the publications of the American Pharmaceutical Association for whatever they cost, maybe $3.00; $5.00 entitling them to state membership and the publications. That would be an inducement. Probably a large number of them could be persuaded for the purpose of taking part in the sections or the work of the Association in general, to become members of the American Pharmaceutical Association.

Since 1860, in this great country of ours, we have been trying to increase the membership of the American Pharmaceutical Association and we have absolutely failed. To think of 3500 members representing 75,000 eligibles; it is perfectly ridiculous. Why not develop some new method of increasing the membership? I am absolutely singing my swan song on this. I use that expression because when I get out of this session, this is the last work I am going to do, but I do believe you gentlemen will see the state associations united in a strong national body

and it remains with you whether you are smart enough to unite them with the American Pharmaceutical Association or let them form an independent body. It is a great scheme, it seems to me. It is the best thing that can be done to bring American pharmacy together. I thank you very much.

N. P. HANSEN: We have a very live association in Nebraska, about 625 members. They have good meetings every year. They are fellows that do things and have done things ever since they have been in existence, thirty-six years. Now that association is commencing to organize itself into functional units and, as Dr. Hynson says, it is just a question of whether you want to avail yourselves of the timber that is in that association or whether you want it to go somewhere else? Do you want it or not? That is just about the question. If you can create some position in which it may act, thereby becoming serviceable to the American Pharmaceutical Association, as Dr. Hynson remarked, and by finally becoming active members of the Association, taking part in the section work, I think you have done something good. Those associations are going to organize themselves in furtherance of their individual interests and collective interests in these states, and you are not going to prevent them from doing that. Now the question is where are they going to land? What is going to be the result? There could not be expected to be any better result than for them to become attached to that learned body, the American Pharmaceutical Association; and I think that the American Pharmaceutical Association could be enlarged very materially should it have these associations, with their officers, working in the same direction. Any particular difference of opinion that might arise would be a difference that would tie rather than separate. In the interest of the American Pharmaceutical Association, I sincerely believe that it is possible to organize these state bodies for national work that will redound to the best interests and to the promotion of that which we hold dear, to the furtherance of education and higher standards in pharmacy throughout the entire country.

W. C. ANDERSON: Mr. Chairman, I do not want to prolong this argument, and I certainly have no objection to the plan that is outlined by Dr. Hynson and Mr. Hansen at all. There may be, here, an opportunity for such an organization as they propose, but when we present recommendations to the American Pharmaceutical Association to create such an organization and make a by-law, providing that it shall be a permanent organization, we ought to have with that some ideas of what that organization is to be and what it has to do. As it is now, there are delegates sent from different bodies to the House of Delegates and they have come here for three years and argued as to what the House of Delegates shall do; it has nothing to do. There is no question that has been brought before this House of Delegates, in the three years it has been in existence, that does not belong to some of the sections, educational, legislative, commercial interests, historical or some other section. It is simply calling the delegates from these different sections, where they could be of some value and obtain some knowledge, into a meeting to spend time talking about what shall this particular body do? And that is the reason I believe the body, as now existing, ought to be done away with, because it was only a resolution that created it. And then Dr. Hynson or some one else, having some definite ideas with reference to the correlation of these different organizations, should bring in some definite plan, and in the report I propose, we should have something concerning what this body should do and what its objects are.

H. V. ARNY: Mr. Chairman, this is a most striking example of simultaneous sessions. Our Chairman gave a fine report outlining the mission of this body and the Secretary put it into tangible form by calling attention to plans which had been suggested for obtaining results in this House of Delegates next year. A committee was appointed, of which Dr. Beal is a member, which I believe proposes to present tangible reasons. This is one reason, Dr. Anderson, why it is proposed to make this a recognized part of the Association.

W. C. ANDERSON: Lay this whole thing on the table and let it come up at general session.

THE CHAIRMAN: The question is on the substitute offered by Dr. Anderson.

THE SECRETARY: The question before the house is: "Resolved that the House of Delegates recommends to the general session that the House of Delegates be discontinued."

THE CHAIRMAN: I will ask for a vote on that.

Motion put before the house and lost.

THE CHAIRMAN: Now the vote is on the recommendation.

THE SECRETARY: "Resolved that the House of Delegates recommends the adoption of the following amendment to the by-laws of the Association: 'That there be and hereby is created a House of Delegates to have and exercise such functions as may be hereafter specified by the Association.' "

(Motion put before the house and carried.)

H. P. HYNSON: Yesterday, to be able to bring this before the house, I moved an amendment of the by-laws of this body in regard to the representation in the House of Delegates. Chapter II, Article I, reads:

> "Representation. The membership of the House of Delegates shall consist of three regularly elected or appointed delegates from the Local Branches of the American Pharmaceutical Association, State and Local Societies, Colleges and Schools of Pharmacy and delegates from the National Association of Retail Druggists, National Wholesale Druggists' Association, American Medical Association, National Association of Boards of Pharmacy, Women's Organization of the National Association of Retail Druggists, National Association of Manufacturers of Medicinal Products, American Chemical Society, Association of National and State Food and Dairy Departments, Association of Official Agricultural Chemists, and from the departments of the Army, Navy and Public Health and Marine Hospital Service, the American Association of Drug Clerks, the credentials of whom shall be approved by the Council; together with five members of the Council, appointed by the Chairman of the Council. The President, President-elect, Treasurer, General Secretary and the Chairman and Secretary of the Council shall be members *ex-officio*."

I have contended that this body can never be what it should be unless it is composed of delegates who represent the same character of membership and the same character of associations. The state associations' membership is exactly in accord with the American Pharmaceutical Association, which includes persons representing all kinds of pharmaceutical interests. They harmonize almost identically with the American Pharmaceutical Association, but we have represented in the present House of Delegates every form of interest, unequal in scope, unequal in interest and unequal in everything. My friends, it is just like making a Congress of representatives from counties, representatives from cities, representatives from

congressional districts and representatives from states, putting them all into one Congress with equal power and do you not see there would be double representation? The same man represented by the district, by the city and by the county representative. That is just the condition we have here which I have tried for about three years to explain. Therefore, I moved to amend these by-laws, yesterday, by striking out of chapter two, article one, all after the word "from" and inserting the words "each state association." With your permission I will amend that so that article one will read as follows: This I have a right to do, notice having been served:

> "Representation. The membership of the House of Delegates shall consist of three regularly appointed delegates from each State Association, from the District of Columbia Association and from similar associations in Porto Rico and the Philippines and any foreign American state. Delegates from all other bodies and organizations shall have the privileges of the floor but shall not have the right to vote."

I submit that if the Association makes this a permanent organization by by-law and we adopt this amendment, then we will have a delegate body such as Mr. Hansen has so ably advocated. I move that the amended form be adopted as a substitute for that presented yesterday.

N. P. HANSEN: I second that motion to bring it before the house.

THE SECRETARY: Now that the motion has been seconded, although I am heartily in favor of this change in the by-laws, I would like to call attention to two things: first, that we had presented to us yesterday a resolution which recommends that a committee be appointed to consider this question of representation in the House of Delegates. Of course, that resolution has not been adopted as yet. The second question in my mind is that the by-laws of the House of Delegates say that the House of Delegates shall have the right to draw up by-laws that are not inconsistent with the by-laws and constitution of the Association or the Council and I cannot see, if the Council and the Association has decided for us what our representation shall consist of, how this can be constitutional.

H. P. HYNSON: You have said yourself there are no by-laws regulating this organization.

THE SECRETARY: But we were created by the Council and when the Council gives us the right to make by-laws that are not inconsistent with the by-laws of the Council or the Association: (Reading) "It shall have the authority to adopt all rules and regulations necessary for the proper conduct of its business and not inconsistent with the constitution and by-laws of the Association and the Council."

H. P. HYNSON: Why not let this go through and if it is inconsistent we can make the other by-laws conform to it?

H. V. ARNY: Mr. Chairman, I would like to offer as a substitute, that at the present time this proposed change of the by-laws be referred to the Committee on Reorganization of the House of Delegates, to study along with the other ideas they have in mind.

W. C. ANDERSON: I second that motion.

H. P. HYNSON: Professor Arny, I hope you will not press that, because if you do you will put this thing off as you have before. If you will pass this amendment and it is not in accord with what is best, it can be changed next year, but if

we go without some definite action this year, then we have wasted another year. Why put it off?

H. V. ARNY: In explaining my substitute motion, I will state it is something like this: for all we know at three o'clock this afternoon there will be no House of Delegates, a vote may be passed that the House of Delegates be formally abolished. What is the use of us voting for this amendment until we definitely find out whether we are going to have a House of Delegates or not? And, Dr. Hynson, do not forget you are the man who is going to give us a comprehensive plan next year. Why should not you include that?

H. P. HYNSON: We have done that time and time again. Mr. Chairman, I do hope if we are going to do anything at all (we have said that such a body should exist) we will give a definite idea of what the House of Delegates shall be. If, afterwards, you wish to pass a resolution as to what its functions shall be, that will be all right.

H. V. ARNY: Mr. Chairman, I desire to press my substitute motion. I want my good friend, Hynson, to understand that there is no discourtesy intended at all, just simply to turn it back, to defer it for a short time. It is in your hands to bring up at any time.

H. P. HYNSON: Unless you pass some such amendment as I have offered, the House of Delegates has no standing which will give it recognition. We want to say to the general session "this is the House of Delegates we wish to establish and maintain."

THE SECRETARY: I have a resolution here, resolution number nine, "Resolved that representation in the House of Delegates be limited to state and territorial pharmaceutical associations." That was a recommendation that was to be made to the general session.

H. P. HYNSON: Read my amendment.

THE SECRETARY: "Representation. The membership of the House of Delegates shall consist of three regularly appointed delegates from each State Association, from the District of Columbia Association and from similar associations in Porto Rico and the Philippines and any foreign American state. Delegates from all other bodies and organizations shall have the privileges of the floor but shall not have the right to vote."

H. P. HYNSON: Mr. Chairman, I move to refer my amendment to the General Association as a recommendation, if the House of Delegates is continued, that this be the by-law with reference to representation.

H. V. ARNY: I withdraw my motion then.

(Motion put before the house and carried.)

(Chairman Hynson resumes the chair.)

THE SECRETARY: Resolution number two: "Resolved that the Association recommend to its members the use of the Evans' rule for pricing prescriptions."

H. V. ARNY: I move that be adopted.

W. C. ANDERSON: What about the Sherman law, the fixing of prices on things by combination?

THE CHAIRMAN: Gentlemen, this is out of order because that resolution was adopted yesterday, unless you move to reconsider the action of yesterday.

H. V. ARNY: That is very interesting. I want to call your attention to the

fact that the same discussion started in the New York State Pharmaceutical Association and someone raised the point that since the New York State Pharmaceutical Association was a chartered organization, if we should resolve the prices of prescriptions should be so much, we might get in the arms of the Federal Government. Was that point brought out?

THE CHAIRMAN: Not at all.

H. V. ARNY: I would, therefore, recommend that the action of yesterday be rescinded.

W. S. RICHARDSON: I do not think we ought to take up the pricing of prescriptions.

THE CHAIRMAN: I will tell you what occurred. Mr. Mason read a paper and in it he recommended very highly the Evans' rule. The proposition was di cussed a little while and I finally said, "Is there anyone here who would like to make a motion to endorse the Evans' rule as the sense of the House of Delegates," and Dr. Claus got up and said, "I take great pleasure, Mr. President, in making that motion." He is not here, but I remember how he said it, "I take great pleasure," and it was seconded and passed without opposition. The House of Delegates stands on record as endorsing the Evans' rule as the proper plan of pricing prescriptions. If you want to move a reconsideration, do so.

W. S. RICHARDSON: I move to reconsider the action of yesterday on this subject.

(This motion was seconded by H. V. Arny, put before the house and carried.)

W. C. ANDERSON: The motion is before the house the same as it was before it was passed. The motion is to adopt it.

THE CHAIRMAN: All in favor of endorsing the Evans' rule as the sense of the House of Delegates signify by saying "aye."

(This motion was lost by a unanimous vote.)

THE SECRETARY: Resolution number three. These were referred to the House of Delegates by the general session. They are two resolutions recommended by the Committee on Weights and Measures:

"Resolved that this Association approve the idea of a conference to be held in New York during December and authorizes its committee on weights and measures to participate in such a conference.

"Resolved that the Association expresses the hope that the National Wholesale Druggists' Association will also take steps to appoint a committee to take part in the proposed conference."

W. C. ANDERSON: I move the adoption.

(This motion was duly seconded, put before the house and carried.)

THE SECRETARY: The fourth resolution is from the Committee on Status of Pharmacists in Government Service. This was read at the second general session of the Association and referred to the House of Delegates.

(See page 1038, October issue, 1916.)

H. V. ARNY: I move its adoption.

(This motion was seconded by Dr. Anderson, put before the house and carried.)

Then we have a resolution which was sent in by mail from the Wisconsin Pharmaceutical Association:

"At the last annual convention of our Association the following resolution was passed, *viz.:*

'Whereas as the delay in the publication of recent revisions of the U. S. P. has been the subject of much unfavorable comment and whereas the present inadequate methods of revision appear to be largely responsible for this delay, therefore be it, Resolved: That the Wisconsin Pharmaceutical Association request the American Pharmaceutical Association to take such steps as may be necessary to secure for the future a more adequate and scientific revision by more up-to-date methods and be it further Resolved: That we favor the future revision of the United States Pharmacopoeia by the U. S. Government with the convention for the revision of the U. S. P. as an advisory body.'

Respectfully submitted,

(Signed) E. G. RAEUBER, *Secretary Wisconsin Pharmaceutical Association.*"

H. V. ARNY: I move that communication be referred to the Association's committee on United States Pharmacopoeia.

(This motion was duly seconded, put before the house and carried.)

THE SECRETARY: Resolution number six: "Resolved that representation in the House of Delegates be limited to state or territorial pharmaceutical associations."

H. V. ARNY: That has been practically disposed of by a preceding resolution and I move that be adopted.

(This motion was duly seconded, put before the house and carried.)

THE SECRETARY: The last resolution—this has been handed in by Dr. Rusby: "Resolved that the American Pharmaceutical Association accept the invitation of the joint committee on nomenclature of the American Association of Nursery Men and the Ornamental Growers' Association to appoint a committee to cooperate with them in bringing about uniformity in certain plant names and that the incoming president be instructed to appoint a committee of three for this purpose."

H. V. ARNY: Mr. Chairman, Dr. Rusby had to leave this morning and he wished me to discuss this matter. He wished me to bring this up in the general session and I impressed him it would be better to discuss it here. This is a very flattering recognition of the influence of the American Pharmaceutical Association. The nurserymen and horticulturists are using a lot of archaic drug names and they realize the good work that has been done here on the uniform classification of drug names and they have appointed a committee but they have requested particularly that the men who did the work in the American Pharmaceutical Association should coöperate with them, so I heartily move the adoption of that resolution.

(This motion was duly seconded, put before the house and carried.)

THE SECRETARY: As it will be impossible for your secretary to get the transcript of the stenographic notes of this session before this material is given to the general session, I would beg your permission to read to you what we have decided to do, so that there will be no mistakes afterwards and so that no one will go away from here with any misapprehension.

(The secretary then read the minutes of this session in abstract form.)

THE CHAIRMAN: Under the head of unfinished business, I will call for report of the Committee on Nominations.

H. V. ARNY: The Committee on Nominations has decided to recommend as chairman, Dr. James H. Beal, founder of this House of Delegates, Vice-Chairman, Mr. S. C. Henry, both of whom are working on the subject in the president's

address, and since Mr. Hostmann has been working on this matter so well, we recommend his renomination. This is the report as it stands.

N. P. HANSEN: I move the report of the committee be received and the nominations close.

(This motion was seconded by Dr. Anderson, put before the house and carried.)

H. V. ARNY: I move the Chairman cast the ballot for the election of the nominees.

(This motion was seconded, put before the house and carried and the Chairman cast the ballot.)

THE CHAIRMAN: I take great pleasure in declaring Dr. Beal elected Chairman, Mr. Henry, Vice-Chairman, and Mr. Hostmann, Secretary, and as Dr. Beal is not present I ask Mr. Henry to take the chair.

VICE-CHAIRMAN HENRY: Mr. Chairman, this is all so sudden to me that I wonder if it was wise for me to come in the room. I can assure you, gentlemen, that I had no intimation at all that I was even being considered for any honor at the hands of either this particular section or any other section of the American Pharmaceutical Association. However, I think that my interest in pharmaceutical matters is sufficiently well known to you all to know that I am always willing to serve my fellow pharmacists to the best of my very limited ability and I, therefore, thank you for the confidence you have in me and the honor you have bestowed upon me.

(This concluding the business of the House of Delegates a motion to adjourn was adopted.)

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**Favorite phrase of the reformer**—"They do it so much better in Europe"—has been dinned in our ears until we are inclined to be petulantly resentful. Like naughty children, we are continually nagged by zealous friends who urge us to emulate the scientific and economic achievements of England, Germany and France.

Echo answers from those very countries, in words of the same sort from their equally zealous friends, "emulate the great deeds of America." Only a few weeks ago the Privy Council of Great Britain pointed out that the U. S. was doing more than any other country in industrial chemistry.

And in Parliament assembled, America is further held up to Britons, with the admonition: "Go thou and do likewise."

Viscount Haldane: "Englishmen have been lacking in scientific direction of their abundant energy. To secure this, training and education are essential."

Lord Bryce: "The business community of England, unlike the business community of America, does not yet appreciate the important effect which scientific discovery and the application of science to their industries, might have upon their business."

In the debate on technologic education, Viscount Haldane told the story of an American manufacturer of photographic supplies who wished to develop new scientific research. This manufacturer found a very capable expert in England; but no inducements could take this man from the British company which he was serving. Thereupon the American manufacturer bought out the whole British establishment, chemist and all, and now has him as head of his research laboratories in Rochester, New York.—*The Nation's Business.*

# SECTION ON PRACTICAL PHARMACY AND DISPENSING, AMERICAN PHARMACEUTICAL ASSOCIATION

## JEOPARDIZING THE PHARMACIST'S REPUTATION FOR FAIR DEALING.*

BY ROBERT P. FISCHELIS.

In every walk of life there are men who, because of ignorance or lack of scruples, are continually jeopardizing the good name of their fellow craftsmen.

Pharmacists, perhaps more than any other group of men, have been made to suffer inconveniences of all sorts because of a few evil doers within their ranks, and it is only very recently that pharmaceutical organizations have taken up the matter of educating the public to the realization that the profession as a whole should not be judged by the acts of a few weak brothers.

Campaigns of publicity such as have been inaugurated by several state associations will redound to the good of the rank and file of retailers, provided the public actually receives the kind of treatment which it is led to expect from the press bulletins issued.

The object of this paper is to sound a warning note to those who are taking unfair advantage of war conditions and favorable publicity regarding the high prices of drugs, to impose on the public and thereby cast a blot upon their fellow craftsmen.

Two instances have recently come to the attention of the writer, which demonstrate either an intense ignorance of prevailing market prices of drugs or a desire to "bleed" the customer, on the part of the pharmacist. One druggist received a prescription calling for $1\frac{1}{2}$ grains of powdered opium, and $\frac{3}{4}$ grain of powdered belladonna to be mixed and made up into three rectal suppositories. Claiming that the Roman numeral III looked like XII on the prescription, he made up 12 suppositories in place of 3, although the quantities of the drugs should have suggested that fewer than 12 suppositories were prescribed.

The customer was charged $1.30 for this prescription. Let us analyze the cost. The opium at prices then prevailing cost .4 cent, the belladonna .02 cent, the cacao butter for twelve 30-grain suppositories 3 cents, making a total of 3.42 cents. Doubling this would give us roughly 7 cents. Adding 5 cents for cost of container and a liberal compounding fee of 75 cents, we arrive at a total of 87 cents.

Without taking into consideration that the wrong number of suppositories was put up in the first place, it can readily be seen that a fee of $1.30 was exorbitant.

A veterinarian of high standing and one who has a warm spot in his heart for the pharmacist, having been an apothecary at one time, told the writer of an experience which is even more striking than the above.

He sent two prescriptions to a druggist, one calling for 2 fluid ounces of fluidextract of ergot and $\frac{1}{2}$ fluid ounce of fluidextract of nux vomica, and the other

* Read before Section on Practical Pharmacy and Dispensing, A. Ph. A., Atlantic City meeting, 1916.

calling for 2 ounces of potassium bromide. A lumped charge of $4.25 was made for the two prescriptions.

Taking them up individually, we find that 2 ounces of potassium bromide at that time cost 82 cents; doubling this cost, adding 5 cents for container and 15 cents as a compounding fee, we have $1.84.

Two fluid ounces of fluidextract of ergot cost 56 cents, half an ounce of fluidextract of nux vomica cost 7 cents, making a total of 63 cents; doubling this and adding 5 cents for container and 30 cents as compounding fee we have $1.61; adding this to the charge for the bromide prescription we get $3.45. Thus it will be seen that the customer was asked to hand over nearly $1 more than a most liberal accounting would make the prescriptions worth.

The customer protested to the veterinarian about the high price asked for these prescriptions and the latter promptly took up the matter with the druggist who maintained that the charge was just. But the best part of the story is still to come. Two days after these prescriptions had been filled, the pharmacist notified the customer that he had made a mistake in looking up prices and that the two prescriptions would cost $1.65, which is just 15 cents above the actual cost of ingredients and containers, according to our calculations.

The latter case therefore seems to be one of gross ignorance of how to compute the price of a prescription as well as a lack of acquaintance with market prices of drugs. In the former case it seems to be a question of "getting as much as possible while the getting is good."

It would be a pity if the organized effort that is being expended in placing the pharmacist in the proper light before the public should be made ineffective by the acts of a few greedy blunderers, just when this effort is beginning to bear fruit.

## ABSTRACT OF DISCUSSIONS.

EMIL ROLLER.—We can not adopt any uniform rule of pricing prescriptions because of the different locations and the different clientele we have, and the peculiar conditions of these people will necessitate a moderation of prices in some neighborhoods, while in other neighborhoods where rents are in the thousands and the people have an income that is ten, twelve or twenty-five thousand, to charge them prices that we would charge to our customers in a neighborhood where the men earn twelve, fifteen or twenty dollars a week would be unjust in the one case to the customer, and in the second case unjust to the druggist because his expenses in the conduct of business is so much larger and those have to be added. Once in a while I have an argument with customers, "Why, I paid Jones only so much, why should I pay you more?" I always answer them, "If you eat a steak in a little restaurant you pay fifty cents, and if you go to the Waldorf Astoria you pay a dollar and a half and you wouldn't kick about it. Why do you kick here? You get better service in this neighborhood, adapted to your means and conditions." So I think the fixing of uniform prices must be invariably looked upon according to the position or location where you have your store.

OTTO RAUBENHEIMER.—I don't see anything wrong with the charge of one dollar and thirty cents for twelve suppositories, and if it was a good hot day I would charge a dollar and a half.

H. A. B. DUNNING.—One point I want to make with reference to the price of prescriptions; referring to the twelve suppository prescription particularly, I don't think that we should give much consideration to the cost of the prescription. More consideration should be given to the time and thought and care of finishing that prescription. The cost should be based rather on the knowledge required and the time than the cost of it. As a matter of fact we often tell our customers that we don't calculate costs. We calculate overhead expenses particularly, and the knowledge and other necessary requirements such as one of the gentlemen mentioned, of locality and the ability of the customer to pay.

P. HENRY UTECH.—I believe the average drug store puts too little valuation on the professional knowledge. For instance, if you are located on a corner, rather than to add five or ten cents more the tendency is to make it five, ten or twenty cents less and in doing so in a large measure depreciate your own ability as a pharmacist. I think that is one of the things we ought to take home as a lesson, as Mr. Roller says, stand on your own feet and don't be afraid to charge what the trade will bear, of course within reason.

R. P. FISCHELIS.—I might say my prices were computed according to the N. A. R. D. schedule of pricing prescriptions, and I hope every one of you are getting a dollar and a half an hour for your work. You must not lose sight of the fact that this prescription was written for three suppositories.

I note that no one took exception to the prescription which did not take any time at all to compound, and for which an exorbitant fee was charged. I might say in the one case, it was the transaction of a country store and the people who brought the prescription were poor people, and the latter fact holds true in the city store, for the other prescription. It may be true that in different localities we need to charge different prices, but we can't lose sight of the fact that there must be a maximum in things. If we are getting the business of pharmacy down to a system, we ought not to have one system for one customer and another system for another customer.

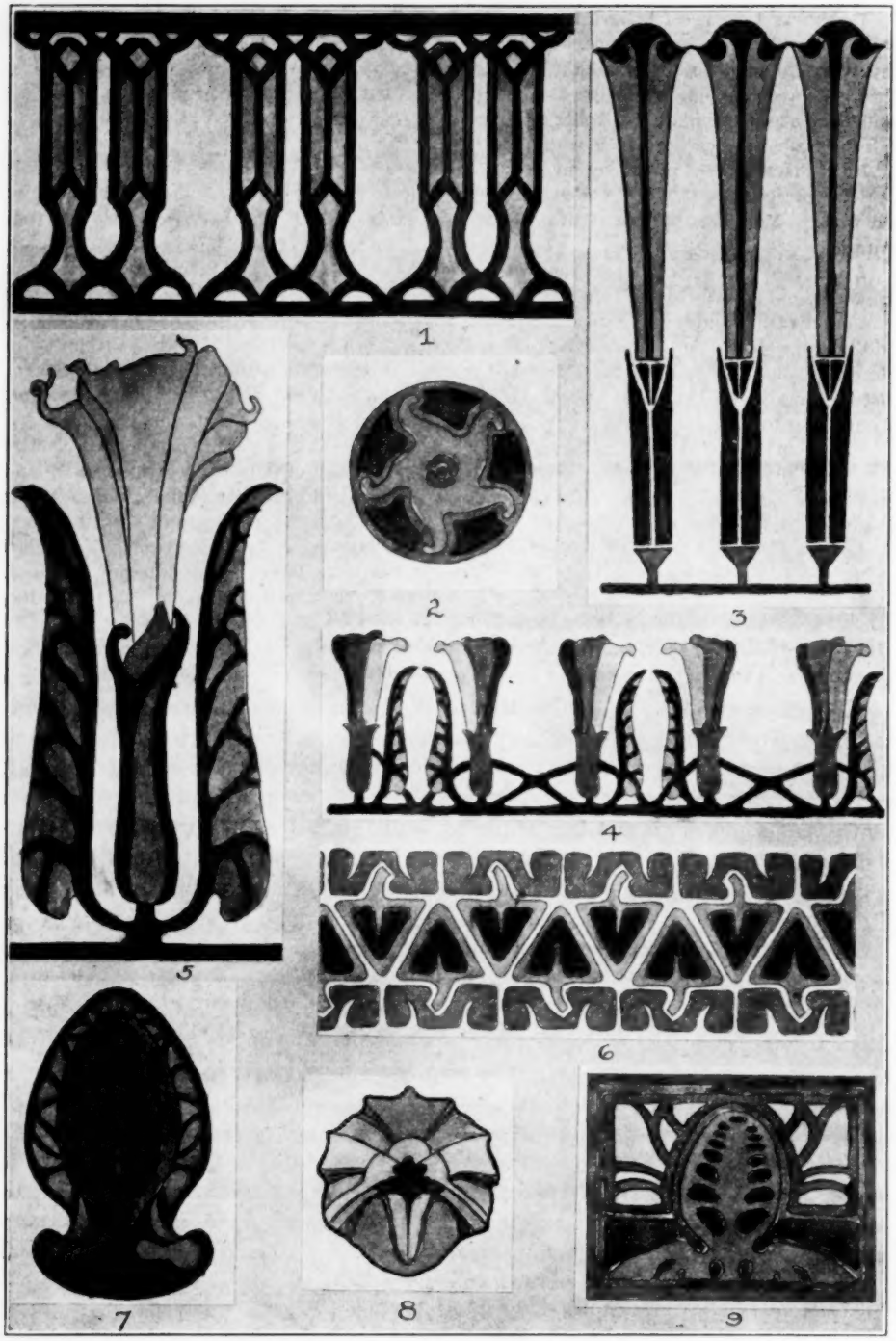
EMIL ROLLER.—I would just like to make one remark. One day one of those "very smart young men" came in with a prescription for a grain and a half of potassium permanganate and four ounces of water. I made up the prescription and charged him forty cents. Well, after he paid, and with lots of people in the store he said, "Suppose I had bought ten cent's worth of permanganate of potash how many bottles of this could I have made?" I answered: "I charged you ten cents for the permanganate, five cents for the bottle, and twenty-five cents for my labor. If you had bought the permanganate and I mixed it for you, you would gladly have given me, wouldn't you, twenty-five cents for the labor?"

## MEDICINAL PLANTS IN DECORATIVE ART.*

One other result of garden activity (Wisconsin Pharmaceutical Experiment Station) is worthy of special mention. Though remote and unexpected, it proved interesting none the less. If the average American drug store of the past was not much of a work of art, its decoration was even less such. Yet it has long been known that some of the medicinal plants lend themselves admirably to conventionalized decoration of a higher order and are peculiarly adapted to the drug store. Hence, in the late summer of 1914, Miss Bernice Oehler, teacher of art at the Madison High School, was induced to visit the garden and to look over the available material. At that time a large number of species and varieties of *Datura* were in blossom and had already produced fruit. Leaf and stem, flower bud, full blown flower, and capsule, all lent themselves admirably to the problem. For each member of the art class there was a different species or variety, yet all of the forms were of similar type. The result was most striking. The water-color drawings and the conventionalized designs proved universally attractive when exhibited at the University Exposition the following spring. If juniors in a high school can produce such results what may be expected of the mature artist? The possibilities in this direction for drug store decorative art are well-nigh unlimited. The adoption of such designs in planning new stores would result in something distinctive, and would tend, as much as any one thing, to lend a more professional aspect to the pharmacist's place of business.

Of these illustrations The School-Arts Magazine says that they exhibited unusually fine coloring, all lost in the half-tone reproduction. See illustrations on following page.

* From Report of Pharmaceutical Experiment Station, University of Wisconsin, December 1916.




DRUG STORE DECORATIONS

Decorations derived from several species of *Datura*, raised in the Wisconsin Pharmaceutical Experiment Station garden, by pupils of the Madison High School under the direction of Miss Bernice Oehler. (The cut was kindly loaned by *The School-Arts Magazine* of Boston.)

# SECTION ON HISTORICAL PHARMACY, AMERICAN PHARMACEUTICAL ASSOCIATION

## PHARMACEUTICAL EVENTS IN 1816.*

BY OTTO RAUBENHEIMER, PHAR. D.

Although in the excellent chronological summary of the chief chemical events in *A Concise History of Chemistry*, by T. P. Hilditch, a blank space is left behind 1816. I find from my notes, collected for a long time, that the many events of that year in the fields of pharmacy, chemistry and allied sciences are amply sufficient for an historical paper.

The arrangement is the following:

1. Of General Interest.
2. Events, Pharmaceutical, Chemical, etc.
3. Inventions and Discoveries.
4. Bibliography.
5. Pharmacists born in 1816.
6. Pharmacists who died in 1816.

### OF GENERAL INTEREST.

National Banks established in the United States.

American Bible Society formed. Centenary celebrated at Carnegie Hall, N. Y. City, May 9, 1916.

Indiana became a State, the 19th State of the Union on December 11, 1816. Centenary celebrated at Bloomington, the seat of Indiana University by historical pageants on May 16–18.

Brooklyn, N. Y., was incorporated as a village, a small village without streets or sidewalks. The first barber moved back to New York and in order to secure another the village authorities offered free rent.

Brooklyn Sunday School Union formed. Local celebration on April 9, 1916.

Seasons reversed, summer into winter and winter into summer.

Proclamation of Argentine Independence, commemorated by American Congress of Bibliography and History, July 1916, at Buenos Aires and Tucuman.

Gas installed for lighting in London, England, and also in Baltimore, being the first city in United States with gas illumination.

Great famine 1816–17 in Europe. The chancellor of a German university experimented with wood and published an article on the art of making bread from wood.

John Redmond Coxe, professor at the Medical School, University of Pennsylvania published a paper, "A Plan for Electric Telegraphy," which antidates any American suggestion on this subject.

Agitation commenced in St. Clairsville, Ohio, to abolish slavery.

Abraham Lincoln, 8 years old, and his parents moved from Kentucky to Indiana, crossing the Ohio River in a raft.

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* Read before Section on Historical Pharmacy, Atlantic City meeting, 1916.

EVENTS, PHARMACEUTICAL, CHEMICAL, ETC.

1816–20, Thomas Cooper, Professor of Chemistry, University of Pa.

1816–27, John Gorham gets Erving professorship at Harvard.

First lectures on pharmacy in University of Pennsylvania buildings by Dr. James Mease, a well-known medical practitioner and author in Philadelphia. This is said to be the first attempt of systematic instruction in pharmacy, public or private.

Judge Thomas Cooper, Philadelphia, advertised "A Course of Chymical Lectures to be given in the old Masonick Hall in Filbert Street on Tuesday, Wednesday and Friday evenings of each week at 7 o'clock. Tickets $15 for the course."

Cultivation of peppermint started in Wayne County, Mich.

Pierre Louis Dulong, after losing an eye and sustaining severe injuries to a hand in the discovery of nitrogen chloride in 1811, began work on the oxides of nitrogen. He also studied oxalic and other organic acids and showed that water is an essential constituent.

1812–1816, Berzelius investigated the stages of oxidation of most of the metals, and by determining the composition of these oxides, confirmed the law of multiple proportions.

Laplace established Theory of Velocity of Sound.

INVENTIONS AND DISCOVERIES.

Renné Laennec, physician at the Necker Hospital, Paris, in examining a patient's heart constructed the first *Stethoscope* by rolling a quire of paper into a cylinder and applying one end to the region of the heart and the other to the ear.

Robert Hare, later (1818) professor of chemistry, University of Pennsylvania, invented the Calorimotor.

Alexander Marcet of London, isolated from urinary calculi, in 1816, xanthine, which later was investigated by Woehler, Liebig and Strecker.

Alois Senefelder, the inventor of lithography, made for his own use pens from steel watch-springs. In 1816, he sold his invention to J. Alexander of Birmingham, who started the manufacture of steel pens. At first they were a luxury but about 1830 they came into extensive universal use.

Friedrich Wilhelm Adam Sertuerner, the apotheçary at Einbeck, Germany, after announcing in his first report in 1806 the discovery of "Opium-Säure," names this product in 1816 "Meconic Acid" and explains that it is combined with an alkaline base which he called "Morphium." This discovery was made in 1816, but the report was first printed in *Gilbert's Annalen der Physik*, 1817, p. 56. For this reason, there is frequent confusion between the date 1816 and 1817. This subject is of such great importance to pharmacists that it deserves a separate paper.

BIBLIOGRAPHY.

*Annales de Chimie et de Physique*, edited by Gay-Lussac and Arago, became the successor of Gay-Lussac's *Annales de Chimie*, in which the great chemist published most of his experiments.

*Traite de Chimie Elementaire Theorique et Pratique*, a text-book by Louis J. Thenard, professor at the École Polytechnique and in the College de France. The publication was commenced in 1813 and completed in 1816. Owing to its

excellent synoptical arrangement the work became widely used and was translated into German by Fechner in 1825–33. This work remained the standard authority in chemistry for over a quarter of a century.

*Conspectus of the Pharmacopoeias of London, Edinburgh and Dublin* was published in 1816 by Dr. Anthony Todd Thompson, an eminent Scotch physician. Born in Edinburgh in 1778, he studied medicine and chemistry under the celebrated Monroe and Blake. After practicing medicine in London, he devoted himself to chemistry and pharmacy.

*Pharmacopoeia of New York Hospital* was published in 1816, and enjoyed for some years (until U. S. P. became well known) an authority of more than local character. The physicians and surgeons of the New York Hospital appointed, in 1815, Dr. Valentine Seaman and Dr. Samuel Mitchel to prepare this Pharmacopoeia for their use. The latter was elected President of the first U. S. P. Convention held in the Capitol at Washington, January 1, 1820.

### BORN IN 1816.

Dr. Hans Hermann Julius Hager (1816–1897), generally and simply called Hermann Hager, I place at the head of this list, as in scientific pharmacy he is the brightest star in the heaven of the profession. Having written his biography in the *Druggists Circular*, January 1916, *Deutsch-Amerikanische Apotheker Zeitung*, January 1916, and the *Bulletin of the College of Jersey City*, Vol. III, No. 3, February 1916, I will not repeat same, as these publications are easily available. However, I want to call attention that Hager has also been honored in our country by being elected an honorary member of the A. Ph. A. in 1868, the Chicago College of Pharmacy in 1869, the Massachusetts College of Pharmacy in 1871, the New Yorker Deutscher Apotheker Verein in 1872, and the Philadelphia College of Pharmacy in 1883. The German Apothecaries Society of New York City has presented each one of these societies and colleges a large photograph of Hager to be an inspiration to the younger generation of pharmacists.

### LALLEMAND.

Seemingly forgotten is Alexander Lallemand, a French pharmacist, born in Toulouse in 1816, as but very little information can be obtained even after a diligent search. His principal work was done on volatile oils. He determined the saponification value of oil of spike lavender and also the chemical composition of the stearopten in oil of rosemary as laurel and borneo camphor.

In Gildemeister-Hoffman-Kremers excellent *The Volatile Oils*, I find under Oil of Thyme the following paragraph: "Thyme Camphor was examined by Lallemand in 1853,[1] who named it Thymol."

Lallemand died in 1886 and pharmacists should remember him in connection with Thymol!

### BÉCHAMP.

Antoine (J. A.) Béchamp was born October 16, 1816, in Bassing, near Dieuze (Meurthe) and conducted a pharmacy in Strassburg for many years. He began his scientific career by becoming Agrege at the École de Pharmacie in Strassburg. In 1853 he obtained the degree D.Sc. and in 1856 that of M.D. with a thesis *Sur*

[1] *Journ. Ph. et. Chim.*, III, vol. 24 (1853), 274 and *Compt. rend.*, vol. 37 (1853), 498.

*les substances albuminoides et pur leur transformation en uree.* Béchamp became professor of medical chemistry and pharmacy at the University of Montpellier and later of Nancy

Among his many chemical researches, I will mention the following:

Investigation of the fruits of *Gingka biloba*, finding valeric, propionic and capronic acids.

*Lessons sur la fermentation vineuse et sur la fabrication du vin*, published in 1863, discovering at the same time a dextrogyrate gum in wine.

Reduction of $NO_2$ to $NH_2$ forming amides, by means of iron and acetic acid.

Preparation of para-amido-phenyl-arsenic acid.

Investigation of ptomaine-veratrine.

Chlorination process with $PCl_3$ in 1856.[1]

Last of all we must not forget his *Lettres historiques sur la chimie*, published in 1876.

GERHARDT.

Charles Frederick Gerhardt was born in Strassburg in 1816, the son of German parents. He studied under Erdmann and Liebig. Among his many accomplishments in organic chemistry, I want to mention the following: Theory of Residues in 1839; Atomic Weight System in 1842; Homologous Series in 1844 and Theory of Four Types in 1853. Much of this theoretical work was done together with Antoine Laurent and is preserved in *Comptes rendus des Travaux de la Chimie Organique*, which was published in 1853.

Gerhardt also enriched chemistry with the following discoveries: Quinoline in 1842; the Anilides in 1845; Acid Chlorides from $POCl_3$ in 1851 and Acid Anhydrides in 1852. He wrote *Traité de Chimie Organique*, which was published in 1853.

From 1844–48 he was professor of chemistry at Montpellier, as the successor of Antoine Jerome Balard, the discoverer of bromine. In 1849 he opened a school of chemistry at Paris, which, however, was not a success commercially. In 1855 he was called to fill the chair of chemistry in the Faculty of Sciences at Strassburg where he died on August 19, 1859

In 1844 he obtained the degree of *Maitre en Pharmacie* and he will be forever remembered in pharmacy as his medallion, the 28th among the 36, adorns the façade of the École Supérieure de Pharmacie in Paris.

RIEDEL.

Gustav Riedel was the oldest son of Johann Daniel Riedel, the founder of the firm J. D. Riedel, Berlin, which has a world-wide reputation. Gustav learned pharmacy under such authorities as Emanuel Merck, the founder of the firm E. Merck, in the Engel-Apotheke at Darmstadt. Upon the death of his father on Feb. 11, 1843, he succeeded him, and through his energy the retail and wholesale business was enlarged. In March 1844, he published a printed price list with 570 preparations in 1847 and equipped his laboratories with steam power, and in 1874 he separated the retail pharmacy from the wholesale drug business.

Gustav Riedel is a splendid example of how energy can enlarge a business,

[1] *Compt. rend.*, vol. 40, 944.

even in pharmacy. The firm J. D. Riedel celebrated its 100th anniversary on March 15, 1914.

OROSI.

Every country has its celebrated pharmacists and Orosi is one of them in Italy. Guiseppe Orosi was born in Pisa on March 17, 1816, of poor parentage. After his father's death he became an apprentice in the pharmacy of his native city. He studied day and night and managed to save 100 lires, the examination fee. Upon passing a most excellent examination, he clerked at Livorno at a salary of 16 lire and 80 cent per month and continued his pharmaceutical studies. He became pharmacist in the Livorno Hospital and also gave a course of lectures on pharmacy and chemistry to students.

Orosi succeeded Prof. Piria at the chemical laboratory Corridi, and later established the laboratory Contessini-Orosi, whose pharmaceutical and chemical products became famous.

In 1849 Orosi was made professor at Florence, but on account of his patriotism was removed by Leopold II, Archduke of Toscana. In 1859 the Provisional Government reinstated him in his position and later he accepted the chair of agricultural and pharmaceutical chemistry at the old University of Pisa. Here he lived a happy life among his colleagues, his family and his pharmaceutical friends and died on December 14, 1875.

The literary activities of Orosi began in 1842 when he translated Dumas' *Lezion di Filosofia Chimica*. His master work is his *Farmacologia Theorica et Pratica—Farmacopea Italiana*, the 1st ed. being published in 1849 in Livorno. This excellent work of 1686 pages had 4 editions, the last of which, Milano, 1876, I am proud to have in my library. One page of this book is also devoted to a bibliography of Orosi's works.

Orosi's *Farmacopoea Italiana* is really a dispensatory and similar to Dorvault's *L'Officine*. It must not be confused with the Italian Pharmacopoeia or *Farmacopea Officiale de Regno d'Italia*, the first edition of which was published in 1892.

Many of Orosi's students obtained fame, for instance Torquato Gigli, professor of chemistry and toxicology at the University of Pavia, who translated Flueckiger's *Pharmazeutische Chemie*.

Orosi has also been honored as an Italian pharmaceutical journal *L'Orosi* was established in 1877.

DIED IN 1816.

MORVEAU.

Guyton de Morveau, born in Dijon in 1737, began life as a lawyer or *avocat*, but gave up this career to devote himself entirely to chemistry. To him belongs the credit of introducing in 1782 the first rational system of chemical nomenclature, thus replacing the unmeaning names and confusing synonyms. As a result he, together with Lavoisier, Berthollet and Fourcroy, published *Methode de Nomenclature Chimique*.

He was one of the founders of the École Polytechnique at Paris, in which he subsequently became professor. He also occupied the position as Director of the

Mint. By translating the works of Bergman, Scheele and Black he helped to spread the knowledge of chemistry.

Morveau introduced the process of manufacturing Sal Soda by heating Glauber's Salt with coke and iron. To him we owe the name *Alumina* for $Al_2O_3$, which was formerly called Argile (therefore, the term argillaceous earth for clay) by Claude Joseph Geoffroy, Jr.

Morveau, who was also an influential member of the National Assembly and the Convention, died in Paris in 1816.

CRELL.

Lorenz von Crell was born in Helmstedt in 1744, where he became professor of medicine. Science is deeply indebted to him for the publication of several journals. In 1778 he founded the *Chemisches Journal fuer Freunde der Naturlehre, etc.*, which in 1784 became the *Chemische Annalen* and in 1803 was fused with *Allgemeines Journal der Chemie.* These represent the starting point of the extensive German chemical literature. Crell died in Goettingen in 1816.

DEPARTMENT OF PHARMACY, COLLEGE OF JERSEY CITY.

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**Monument erected over the grave of Dr. Ignaz Philipp Semmelweis by the city of Budapest.**

**PROF. ROBERT HARE**
**Inventor of Calorimoter, 1816.**

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# SECTION ON COMMERCIAL INTERESTS, AMERICAN PHARMACEUTICAL ASSOCIATION

## COMMERCIAL PHARMACY AND SIDE-LINES.*

BY A. S. COODY.

There has been a great deal of discussion of Commercial Pharmacy, which included subjects and things in no way related to pharmacy. Commercial Pharmacy is the business or financial side of the profession of pharmacy. It is not the business of buying and selling things in a drug store altogether foreign to drugs and medicines.

We find that pharmacy deals with the preservation, preparation, identification and selection of drugs and medicinal preparations and articles. It embraces the preparing of certain substances for administration as medicines for the cure of disease, or to prevent disease. The list of things with which pharmacy is associated will be found in the Pharmacopoeia and standard works relating to pharmacy.

By Commercial Pharmacy we properly mean the very necessary business of buying drugs for legitimate use in the retail drug store, and the selling of the products for use in the treatment of disease. It, of course, includes a system of accounting, and the collection of debts, and the best method of securing money in exchange for the drugs we sell, to the end that pharmacists may have their just share of this world's goods. But Commercial Pharmacy does not mean the buying and selling of so-called side-lines. There is no pharmacy in such business, and while it may be commerce carried on in a drug store, it is not Commercial Pharmacy.

With pharmacy, as with any other profession, there is necessarily a business side to it. The evolution of things makes it essential that we obtain something of value in exchange for the drugs we sell, and since we must buy and pay for them, and live besides, we must, of course, make a profit. So then, Commercial Pharmacy is concerned with profit. It treats of its volume, and the way to make it as large as possible, and at the same time render our customers the very best service for their money.

I do not think any profession has an inherent right to live. I do not think, to borrow an old phrase, that the world owes us a living. I think we should earn the living, and the right to exist. Pharmacy, as well as all other professions, is a sort of privilege. We are granted a license that, in a way, sets us apart from other men. We are protected from unlimited competition, and in return for this we should, by right, render some service in return. We owe it to the public, to the people who grant us this privilege to give them our very best service, to make ourselves efficient, and to so conduct our business that we may give them the very highest service and best results for the money expended.

It is our duty, not only to know thoroughly all about the selection, identification, preservation and preparation of drugs, but we should know the business or financial side, so that we can give good drugs, and for the proper price. The

* Read before the Section on Commercial Interests, A. Ph. A., Atlantic City meeting, 1916.

pharmacist who is careless in his methods of purchasing, who is wasteful in handling drugs, who sells to some and gets no pay, must necessarily charge a higher price for his drugs to those customers who do pay. When he does this, he does wrong.

Commercial Pharmacy should be taught in the schools of pharmacy, and should be a prominent subject for discussion by every association of pharmacists. The pharmacist should be taught the economical methods of doing business, and if he will devote his time to that end he will secure greater financial success for himself, and at the same time serve his customers better than he will by devoting a lot of time to so-called side-lines. Our agricultural teachers are having a great deal to say about intensive farming. I know a farmer personally who produces more on twelve acres of land than the average farmer produces on three times twelve. I am convinced that there is opportunity for some intensive work in the profession of pharmacy, and in other professions as well.

Pharmacists should know all about the unprofessional things with which they must come in contact. By these I mean the things necessarily connected with the running of a modern drug store. Every pharmacist has to deal with the question of a store or shop. He should know how to get one in a desirable location for a proper rental, or if cheaper, own one. He should understand the question of proper ventilation, heating, lighting, etc. In many instances, several hundred dollars a year can be saved in rent, heat and light, merely by the proper utilization of space, location of lights, etc. More money can often be saved in this way than can be made from side-lines. Money can be saved in purchasing the right kind of fixtures and fixtures adapted to the business in hand, and the location. Fixtures for a smaller price ofttimes serve better than more expensive ones.

Practically all pharmacists have to contend with the item of clerk hire. This question is a very important one. Large establishments have men employed to make an expert study of this question. By getting the proper clerks, and assigning them to a certain line of work, and having a definite system, the pharmacist can frequently do more work better with a less number of clerks. My advice is to devote more study here and put in fewer side-lines.

The buying of drugs is entitled to much more consideration than is given by the average retail druggist. By taking advantage of discounts and other things common with the business world, a great deal of money can be saved in this department and can be reflected in increased profits, or in a reduced price to the consumer, as the pharmacist sees fit. Of course the selling end should receive expert attention, and the selling of drugs and not getting pay is a great expense in nearly all stores doing a credit business, that must be added to the selling price, or else settled in the bankruptcy court. The matter of a system of accounting and book-keeping is another department that may profitably receive attention.

I am not an advocate of the complete abandonment of side-lines by the druggists, but always let them be side-lines. The prescription department should not be the side-line and the selling of other things the principal business. I have not a high opinion of a pharmacist who is selling soda water, paint, window glass, newspapers, magazines, cutlery, kodaks, fruit, garden seed, athletic goods, running a luncheonette, and so on *ad infinitum*. I always think that a pharmacist carrying on all these things, is not devoting much time to his profession, and if I were the layman I would go elsewhere for my drugs.

There are certain things that custom has decreed that the druggist should handle and are a part of almost every drug store. But I believe we should discourage the addition of new lines to the drug store and rather reduce the number. Drug stores usually have soda fountains; personally, I do not favor it, however, we will concede that to the drug store. Surgical supplies and dressings properly belong to a drug store; perfumes are largely the product of chemical or pharmaceutical skill, and have come to be a part of the drug business as well as toilet articles of all kinds. We might concede the sale of cigars a place in a drug store. In my opinion, things along the lines indicated should be the end of the side-line business. The pharmacist should devote his time and energy to the things immediately connected with his business and improve that, and not compete with book-stores, hardware stores, department stores, restaurants, etc.

I find a general complaint from pharmacists that the general stores and department stores are taking away the business of the drug stores, but what of the other side of the picture? Can a general store be blamed for selling patent medicines and household remedies, when druggists sell knives, kodaks, fruit, paints, window glass, seed, etc.? If the energy and money spent in putting in side-lines and advertising them were spent in building up and running a drug store as it ought to be run, there would be created a distinct line of work that people would appreciate, and there would be no need of laws to protect the pharmacist in his work. If pharmacy was really made a distinct calling, and only those things handled in a drug store that reasonably form a part of such stock, it would only be a few years before the buying public would never think of purchasing cut rate medicines at a department store sale.

By economy and efficient service, a good many dollars can be saved each year, and also by care and judgment and system in the drug department. There are many leaks and wastes that can be avoided by careful, efficient attention to preservation and conservation of drugs, preparations, utensils and containers.

Some of my druggist friends tell me that there is no longer a profession of pharmacy, that it has become an indistinguishable part of a great mass of small businesses. However, we usually find that the store that is conducted properly is selling the largest percentage of drugs. This shows, to my mind, that the public still prefers a pharmacist to sell them medicines and not a department store.

I have in mind a kind of drug store that can and will succeed in any place where there is enough medicine sold to maintain a pharmacy. It is a store not too large and not too small for the goods it carries. It possibly has a cigar counter in the front, where a selected stock of cigars are sold. It is not a loafing place for gossipers. It is clean and neat, and well arranged. Its stock is not displayed like that of a racket-store, but is well arranged to suggest the articles carried, with the articles themselves kept so they will be preserved and not ruined or soiled by exposure to dirt, flies and light. There is an air of business, of sincerity. A customer instinctively feels that he is in a place where he can purchase an article and know that he is not being deceived; that everything handled and sold is just as represented and that every drug is just what it ought to be. He feels that it is presided over by a man who is supremely interested in his profession. I believe that such a store can succeed anywhere, and by taking this stand the principles of Commercial Pharmacy are rightly practiced.

## A NOVEL METHOD OF ADVERTISING A DRUG STORE.*

BY FRANKLIN M. APPLE.

In a recent interview with an old customer, whom I chanced to meet on the street car, I was reminded by him of some very interesting and amusing events that occurred some years ago, when I planned to give publicity to my drug store in a novel manner—one that would be remembered for some months with decided advantages to ourselves. As we resided but a short distance from the grounds of the American Baseball Club of Philadelphia, where the famous "Athletics," managed by the skilled tactician "Connie" Mack, had their home grounds; and as the majority of the male members of the households in our vicinity were ardent "fans," I organized a baseball team, which was known as Apple's Tigers (or Pill Rollers). We sought contests with other teams in our immediate vicinity, which we assisted in assembling, with the result that rivalry soon ran very high, and interesting and amusing contests resulted—some of them resulting in very close scores; and very laughable exhibitions were given by some of the talent, which it is needless to say was purely amateur.

Amongst the opposing teams was one organized by the Congregational Church members, whose house of worship was only two squares distant from my drug store. They were known as the Congregational Crows.

I provided the gounds—that of the "Athletics"—the score cards and the paraphernalia needed by my team, and presented the entire proceeds of the games to the treasury of the Church, which was very gratefully received and was the topic of considerable favorable discussion for months after the games were played. Incidentally I will state that I do not attend services at this Church, hence it was appreciated all the more by the members. As the games were announced from the pulpit—prior to the contests, you can see that we received considerable publicity for our efforts. Other games were arranged for and played with teams, captained by merchants in our section, which served to keep my name before the inhabitants of our vicinity, as we had placards printed and exposed in the windows of the stores within a radius of a quarter mile of our place of business.

Aside from the pecuniary benefits we derived from this venture, the exhilarating exercise was very beneficial to one as closely confined as is the average retail druggist, and served as a pleasing hobby to divert one's mind from the exacting duties of the everyday grind.

The games were reported in a local newspaper that was distributed in our homes, which gave further publicity to our store, without any cost whatever—save a few free passes to the games, and as we had an abundance of vacant seats we did not overcrowd the stands by this procedure.

When re-reading the accounts of these games and bringing to mind some of the amusing features of these contests it is a source of great pleasure I can assure you, as my team was the champion one.

Samples of the score cards are here for your scrutiny; and I hope that this brief narrative may prove to be beneficial to some of my hearers, who can adopt this plan of publicity advantageously.

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* Read before the Section on Commerical Interests, A. Ph. A., Atlantic City meeting, 1916.

# CONTRIBUTED AND SELECTED

## SOME USES OF CHLORAZENE.*

(Dakin's New Antiseptic.)

BY B. L. EICHER.

Great interest being shown in Dakin's New Antiseptic, chemically known as para-toluene-sodium-sulphochloramide, it may be of interest to this body of physicians and pharmacists to know some of the uses it may be put to, and which are not yet generally known.

In the August 1916 number of the *British Medical Journal*, Dr. H. D. Dakin of the Herter Laboratories, New York, tells the results of some work on antiseptics carried out in laboratories at Compiegne supported by the Rockefeller Institute for Medical Research attached to Hospital 21 of the French Army. To quote, he says: "The killing of bacteria by ordinary antiseptic substances is essentially a chemical reaction between the antiseptic on the one hand, and the proteins and cell contents on the other." He recognized the fact that destroying bacteria in water or in test-tubes is comparatively easy, while the destruction of bacteria mixed with blood, serum, pus, etc., is a difficult proposition and worthy of study.

He became interested in Hypochlorites, studied their mode of action and decided that hypochlorites in contact with the =NH group (always abundant in proteins) formed a highly antiseptic =NCl group. Then in coöperation with Prof. J. B. Cohen he prepared certain chloramines which should contain this group, and studied their antiseptic action, later deciding that the most desirable one was para-toluene-sodium-sulphochloramide.

Chlorazene, the trade name applied to it in America, is a white crystalline substance with a faintly chlorous odor, very characteristic bitter taste, soluble 1 in 8 parts of cold water. It liberates, very readily, its chlorine atom in combination with the nitrogen as the NCl group, and its antiseptic properties are due to the readiness with which the NCl molecule combines with proteins, peptones, etc., with which it may come in contact.

Chlorazene has no direct corrosive action even in concentrated solutions, does not precipitate or coagulate protein, such as blood serum, has been demonstrated as being practically non-toxic even when injected hypodermatically on rabbits, and is much less irritating than sodium hypochlorite solution. When its phenol coefficient of 54 is taken into consideration, one may gain an idea of its value as a non-toxic antiseptic.

For general surgical use, a 1 percent solution is strong enough, although if a sign of infection is present a 2 percent is desirable. If stronger solutions are employed, as in war wounds with profuse exudation, the skin if involved becomes irritated and should be protected with vaseline. The most convenient method of use is to pack perforated rubber tubes in the wound beneath the gauze covering, the tubes connected with a larger supply tube, which in turn is connected

* Read before Chicago Branch, A. Ph. A., January meeting.

with the source of supply. At regular intervals of one to two hours, enough of the chlorazene solution is allowed to run through the tubes to saturate the gauze packing. Such a procedure is possible with hypochlorite solution only in strengths between 0.45 percent and 0.5 percent and increase of 0.1 percent showing very marked irritation. Hypochlorite solution has the added disadvantage of being very short-lived when exposed to organic matter.

In eye infection a 0.1 percent is good, while for nose and throat use, a 0.1 percent to 0.2 percent solution is desirable especially when dissolved in a 0.7 percent salt solution. In bladder and urethral cases a 0.25 percent solution is very efficacious.

Oily combinations of chlorazene do not keep well, but a 1 percent to 2 percent jelly with sodium stearate is very staple. Dr. Carrel spreads a 0.7 percent jelly over the wound after thoroughly cleansing with chlorazene or hypochlorite solution. The writer has made 1 percent jelly with tragacanth and only enough of a volatile oil to cover the chlorous odor. This keeps perfectly, and makes a very good lubricant for surgical purposes provided instruments are not kept in it too long. Chlorazene attacks iron fairly rapidly, copper and brass less so, while silver, nickel and aluminum are hardly attacked at all.

In bad war jaw cases, it has not been specially noticed to injure fillings, and a 0.5 percent solution has not appeared to affect the enamel of the teeth. The writer has made a tooth-powder containing 0.5 percent of the antiseptic in combination with saccharin, myrrh, precipitated chalk and sodium bicarbonate, using oil of cinnamon to mask the slight odor of the chlorazene. The powder is pleasantly flavored, causes the peculiar frothing in the mouth of a very weak solution of hydrogen peroxide, and causes the cleanly feeling after use, of that solution.

Another use which will probably become very popular, is in preparing an antiseptic gauze. We have but three or four substances in medicine which can be used in gauze for an antiseptic dressing, and they are either irritating or they possess an undesirable odor. Chlorazene will render a gauze antiseptic, and it may be packed into a fissure without irritation. The scientific branch of the British Medical Journal reports that a 4 percent gauze is the most antiseptic and satisfactory gauze made. The writer has made a sample containing 25 percent of the antiseptic—a higher strength than would ever be necessary.

When we consider the antiseptic power of this new substance, the fact that it is stable, and that it is non-toxic, it is hard to see why it should not take the place of the poisonous and perishable preparations now on the market.

UNIVERSITY OF ILLINOIS,
SCHOOL OF PHARMACY.

# HIGHER EDUCATION FOR PHARMACY AND ITS RELATIONSHIP TO HIGHER EDUCATION IN MEDICINE.

BY C. FERDINAND NELSON, PH.D.*

The last quarter of a century has witnessed remarkable strides in the progress of the practice of medicine in America. From a haphazard, comparatively poorly educated, and all too mercenary a profession, inadequate as an instrument for the public good, it has emerged a powerful, well-organized, liberally educated, scientific and humanity-serving body. The laws regulating the practice of medicine in most of our states have been revised and strengthened. Preliminary educational requirements have been raised to a high level, the professional training time lengthened and made far more thorough than the leaders of the past generation ever thought possible or dared to hope for. The open sesame to all of these remarkable achievements is found in four simple words—Higher education for medicine.

Two powerful influences, one operating from within, the other from without, have contributed to make the profession of medicine what it is to-day. With the establishment in 1905 of the Council on Medical Education, the members of the American Medical Association placed their official approval on educational reform. From this time on the profession committed itself on educational matters wholly to the program and action of its council on education. The wisdom of this move on the part of the Association has long been evident. The council has succeeded in overcoming much of the prejudice existing toward higher education; personal and commercial interests have been conquered in many cases; a successful educational campaign has been conducted which has been productive of untold good to the public as well as to the profession itself.

The other powerful influence for educational reform in medicine came from without and through the Carnegie Foundation for the Advancement of Teaching. Fearless and impartial from the start, the foundation first laid bare, through Dr. Flexner's report in 1910, the conditions that actually obtained in the medical schools and colleges of the United States and Canada. President Pritchett in his report for the same year voices the foundation's attitude on medical education in these words: "The medical practitioner of these opening years of the 20th century should be an educated man, his conscience sensitive to the social importance of general physical well-being, his intelligence quick to follow the progress of medical education." Two years later Dr. Flexner's report on Medical Education in Europe appeared. This report and the one previously mentioned, covering the field as they do, have since been the source books for educational advance in this country. The telling blows from within, aided by the drive from without, have spelled professional and educational victory for medicine in glowing letters.

One of the mightiest problems of modern society is that dealing with the prevention, amelioration and cure of sickness and disease. Its successful solution not only holds out health, happiness and long life to the individual but also virility and strength to the race; it promises a lessening of crime and bids fair to reduce the suffering and miseries of poverty. One cannot wonder at the interest leaders

* Associate Professor of Physiological Chemistry, University of Kansas, Lawrence.

in social and educational movements are taking in bringing about more healthful conditions in every walk and avenue of life.

It is generally assumed that the solution of this problem—the problem of health and disease—belongs to the medical profession. Surely the many lay influences brought to bear, in recent years, on the question of higher education in medicine have eminated primarily from a desire to create a noble profession capable of such a vast task, rather than from any mere desire to bring about educational reform. We may well assume that the reasons the energies of the Carnegie Foundation, along lines of professional education, were first directed towards medicine rather than law and engineering lay in the fact that the possibilities for public good were here more promising and of greater moment. This once begun and well under way, we find that the Foundation has later taken up educational reform in these professions. But the profession of medicine can not solve this problem alone, although a large part of it will undoubtedly fall to its share. We must glory in every educational advance making it more and more capable, and yet not forget that the smaller, to-day much less thought of, but nevertheless essential profession of pharmacy must come in for its share of proper attention if the task is to be completed successfully.

Medicine and pharmacy are essentially complementary professions. We lose sight of this fact too often, probably because we are prone to judge the whole profession by the behavior of the men who commercialize it most. Much of retail pharmacy is to-day steeped in commercialism. This must be admitted. It is so deeply submerged that the pharmacist's professional status is very low, does not exist, in fact, in many cases. The thoughtful pharmacist knows this himself only too well, but conditions which prevail are such that he cannot pull himself out unaided. The introduction of innumerable side lines such as toilet articles, cigars, soda water, and lunches of one sort or another has inevitably tended to make many forget what their real occupation is, and yet when all is said the retail pharmacist does still perform a professional service to the public. He does help solve the problem of health and disease. But our retail practice should be made professional in a much larger sense, and it may be, if we insist on it strongly enough.

The retail side of pharmacy is but one side of the profession. We see a more scientific side in our large pharmaceutical houses. A great many of the graduates of our schools of pharmacy have found their life work in these institutions and are here doing splendid service. The doctor who carries his own drugs often has little respect or use for the services of the pharmacist. He forgets that a pharmacist has, after all, prepared the articles he himself dispenses. The modern internists, who depend on a few drugs or an essentially drugless therapy, may feel for the moment that the pharmacist does not count for much; the teacher of preventive medicine may argue that drugs are a thing of the past and the pharmacist no longer needed; and yet a deeper analysis of conditions will easily reveal to them that the pharmacist holds his place and is as necessary as ever.

It is true that the materia medica of to-day is much smaller than it was ten years ago but, if so, it is because the pharmacist by making preparations from the largest possible sources has enabled the physician by trial to find out which are best. There will always be a materia medica; preventive medicine will have one.

It may be small, even smaller than it now is, but it will persist. It may not have plasters, pressed herbs, ointments, cataplasms, or the grand variety that now exists but it will include active principles, synthetic products and inorganic chemicals of some sort. These are absolutely essential, and they require a corps of men trained in chemistry, pharmacology and botany to manufacture, prepare and dispense. The pharmacist's field is definite, independent, essential, and can no more be excluded in attempting to solve the problem of health and disease than preventive medicine can hope to do away with surgery or internal medicine. Humanity will ever continue to err and will be in need of repair of some sort. Food, rest and physical manipulation may do much to relieve conditions, but never will the time come when all of the pharmacist's products may be dispensed with.

If the pharmacist's field, then, is definite, essential and indispensable as we believe, the profession of pharmacy must take its place by the side of the profession of medicine and with it march onward to accomplish its task in solving the problem we have been discussing. This necessitates a readjustment, a new emphasis, newer ideals, more rigorous training for our young men. The gap that now exists between the professions must be bridged. We need the telling blows from within and the drive from without that have been so beneficial to medicine to accomplish these results.

The safest guarantee of high quality and character of any profession is best secured through high and rigid preliminary educational requirements. Professional skill, superimposed on a narrow general educational foundation, is unsafe and lacks the perspective necessary for future independent growth. Rarely, if ever, can a meager training be productive of the best. Medicine has proven this to its own satisfaction and has not hesitated in recent years to make drastic changes in its educational policy.

The preliminary educational training time in medicine is at present on an average two to three years longer than in pharmacy. The time of professional study is also two years longer. While there is no argument *a priori* that these periods of study should be equal for physician and pharmacist, nothing but good can possibly come from approximating them, particularly the preliminary requirements. This cannot be done in a day, nor in fact in years, but the beginnings of a definite movement along this line should be made at once. Whether it comes first from within or from without does not matter, but let us hope it will come and come soon.

Coincident with our forward progress in preliminary educational requirements and professional training should and must come a readjustment in our retail practice. If American pharmacy is to take its part in helping to make our country a better and healthier place to live in, and it must do this or die an ignoble death, the American pharmacist must feel that he has a higher duty to perform than the retailing of household remedies, cosmetics and toilet articles. We may have to continue for a long time to sell these things but our chief interests must not center themselves here. We must away from this type of commercialism if only in spirit. One too often hears representative pharmacists belittling the drug side of their business: "It amounts to very little with me," or "I don't get any prescriptions any more; if I didn't sell other things I'd have to go out of business." These phrases are true and we will hear more and more of them as the years go on, unless we set about to readjust ourselves to the times we are living in.

How can we do this? First of all, we must learn to make use of the education we get in our schools of pharmacy. We must fully realize that when the state board examination is passed or the college diploma is handed to us that our real professional work and service is to begin in earnest. From this point we should push forward and develop the opportunities which our training has fitted us for. Surely, the college of pharmacy does not exist for the sole purpose of teaching a pharmacist how to fill a physician's prescription and prepare half a hundred odd now seldom used galenical preparations. None of our reputable schools do only this. They offer a basal education along lines far more valuable to enterprising young men.

It may be that the reason we are not making use of our college training in the way we should is to be found in the fact that our professional horizon is narrowed and shut in by a huge row of prescription blanks. Probably, too, our professional sun is nothing but an illegible scrawl on another prescription blank. We must get a new point of view on the value of prescription filling. This is not the pharmacist's only function, nor should it be his chief concern necessarily. Prescriptions are going out of fashion, or rather modern medicine is limiting the number. This is an inevitable result of medical progress. Prescriptions will continue to be written in the future and will always constitute one important phase of the pharmacist's work, but he can well afford to devote three-fourths of his present prescription case to other uses. Let us take down our large prescription sign and put up a smaller, even neater one. We should frankly give up the idea of prescription filling as an ideal for pharmacy. There is no use clinging to it exclusively, and there is far more important work that is truly professional for us to do.

Modern research has demonstrated the value of laboratory methods in every walk of life. The laboratory is here to stay and their numbers are sure to increase. In medicine, laboratory methods and tests have become indispensable to the simplest diagnosis. In public health and sanitary work of all sorts men with chemical and bacteriological training are in constant demand. The young men that leave our schools of pharmacy have a good general training in chemistry and quite often also in bacteriology. Why should they not make use of this information?

The drug store has always been the local laboratory for physicians' prescriptions. Why may it not in the future function as the local chemical, bacteriological, sanitary and industrial laboratory? This move would serve the times we live in. By becoming chemical, bacteriological and sanitary advisers in our respective communities, we would help solve the problem of health and disease in these places. We could and would still be pharmacists. There is no incompatibility in these two lines of endeavor. Our stores are practically laboratories as they are. The technical education we now receive could be put to its best use in this way. Our training and general education would soon be made as thorough as it now is in medicine and the professions co-equal. Higher education can do for pharmacy what it has done for medicine. We should work towards a realization of equality of training in the two professions. President Pritchett's remark previously quoted may well read, "The pharmacist of the opening years of the 20th century should be an educated man, his conscience sensitive to the social importance of general physical well-being, his intelligence quick to follow the progress of pharmaceutical and medical thought and activity."

# PHARMACEUTICAL FORMULAS

## PROPOSED FOR A. PH. A. RECIPE BOOK.

A complete list of these Proposed Formulas since February 1912 was published in an Index in the December 1916 number of the JOURNAL. The Committee will continue its work in monthly instalments in this Department of the JOURNAL. Members of the A. Ph. A. are earnestly requested to send suitable formulas and also criticisms of those published to the Chairman.

Otto Raubenheimer, Brooklyn, N. Y.

Contributed by John K. Thum, German Hospital, Philadelphia:

No. 472.

MISTURA 1-2-3.

1-2-3-Mixture.

| | |
|---|---|
| Mercuric Chloride | 1 grain |
| Potassium Iodide | 2 drachms |
| Comp. Syrup of Sarsaparilla | 3 fluid-ounces. |

We meet so many, who do not know what is meant by 1-2-3-Mixture, that we thought that the Recipe Book could not possibly be complete without the proper formula.

No. 473.

TOOTH WASH.

German Hospital, Phila.

| | |
|---|---|
| Liquid-Soda Soap (J. A. PH. A., vol. V, 422) | 500 mils |
| Glycerin | 200 mils |
| Alcohol | 850 mils |
| Distilled Water | 400 mils |
| Tincture of Myrrh | 25 mils |
| Oil of Clove | 0.5 mil |
| Oil of Peppermint | 3 mils |
| Methyl Salicylate | 12 mils |
| Powdered Cudbear | 0.5 Gm. |
| Comp. Tinct. of Cudbear | 20 mils |

Allow to stand 24 hours and filter. The extra amount of cudbear gives to this preparation a beautiful rich color.

No. 474.

ASTRINGENT MOUTH WASH.

Thum.

| | |
|---|---|
| Zinc Chloride | 20 Gm. |
| Boric Acid | 40 Gm. |
| Methyl Salicylate | 2 mils |
| Alcohol | 50 mils |
| Liquid Antiseptic (German Hospital) | 120 mils |
| Comp. Tincture of Cudbear | 2 mils |
| Distilled Water, a sufficient quantity, | |
| To make | 2000 mils |

Dissolve the zinc chloride and boric acid in 1500 mils of water; dissolve the methyl salicylate in the alcohol, add the liquid antiseptic and compound tincture of cudbear; mix the two solutions, and finally add enough water to make the required volume.

No. 475.

LIQUID ANTISEPTIC.

Lister's Formula.

German Hospital, Phila.

| | |
|---|---|
| Oil of Eucalyptus | 10 mils |
| Methyl Salicylate | 10 mils |
| Eucalyptol | 5 mils |
| Menthol | 10 Gm. |
| Thymol | 10 Gm. |
| Fluidextract Hydrastis | 10 mils |
| Glycerin | 300 mils |
| Alcohol | 2500 mils |
| Boric Acid | 200 Gm. |
| Water, a sufficient quantity, | |
| To make | 8000 mils |

Dissolve the alcohol-soluble ingredients in the alcohol, add the glycerin; dissolve the boric acid in the water; mix the two solutions, add the fluidextract of hydrastis and allow to stand 24 hours. Finally filter through paper, using 120 Gm. of precipitated calcium phosphate as a clarifying agent.

No. 476.

SCARLET RED OINTMENT.

| | |
|---|---|
| Scarlet Red (Biebrich) | 4 Gm. |
| Olive Oil | 12 Gm. |
| Lanolin | 30 Gm. |
| Petrolatum a sufficient quantity, | |
| To make | 100 Gm. |

Triturate the scarlet red and olive oil until perfectly smooth, and then add lanolin and petrolatum.

Note: Used to hasten growth of new skin and epitheliation. Old ulcers markedly improve. Ointment should not be left on for more than 48 hours or irritation may occur. Also used for X-ray burns with good results.

See also other Formulas in J. A. PH. A., vol. I, pp. 505 and 506.

Contributed by the Chairman:

SPECIES OR TEA-MIXTURES.

This is one of the oldest forms of "household remedies," still largely in use, especially among foreigners.

They are mixtures of whole or comminuted plant drugs. Species are employed for the preparation of internal medicines and also for external applications or for baths. When used for infusions or decoctions or for maceration or for a bath, the drugs are cut or bruised as, f. i., Species Pectorales N. F. When intended to be filled into flannel bags, which are to be heated and applied dry as a cataplasm, then the drugs should be finely cut or coarsely ground, f. i., Species Aromaticae, see below. Species which are to be mixed with hot water to form a poultice should be in the form of a coarse powder, f. i., Species Emollientes N. F.

The formulas for these Species differ somewhat in the various Pharmacopoeias and Formularies. The source of these is given for which there is an occasional demand.

In the collection of formulas herewith presented, the degree of comminution is stated, as well as the uses of the Species.

No. 477.

SPECIES AROMATICAE.

Aromatic Species or Herbs.

D. A.—B. V.

| | |
|---|---|
| Peppermint | |
| Lavender Flowers | |
| Wild Thyme | |
| Thyme, of each | 2 parts |
| Clove | |
| Cubeb, of each | 1 part |

The first five ingredients are finely cut and mix with the ground cubeb.

Used as a carminative and against colic in the form of dry or wet poultices. For a bath from 100 to 500 Gm. are used.

No. 478.

SPECIES DIURETICAE.

Diuretic Species or Tea.

D. A.—B. V.

| | |
|---|---|
| Rest Harrow Root | |
| Lovage Root | |
| Juniper Berries, N. F | |
| Glycyrrhiza | equal parts |

Cut the roots coarsely and mix with the crushed berries.

As a decoction, using 1 tablespoonful to 3 cups of water and evaporating to 2 cups of tea. As the name indicates it is used as a diuretic, especially in dropsy.

No. 479.

SPECIES LIGNORUM.

Wood Tea.

Holzthee.

D. A.—B. V.

| | |
|---|---|
| Rest Harrow Root | 3 parts |
| Guaiac Wood | 5 parts |
| Glycyrrhiza | 1 part |
| Sassafras | 1 part |

Cut coarsely and mix. Used in the form of a decoction in the same proportion as Species Diureticae. Diaphoretic and so-called blood-purifier.

No. 480.

SPECIES ALTHAEAE.

Althaea or Marshmallow Tea.

Eibischtee.

Ph. Aust. VIII.

| | |
|---|---|
| Althaea Leaves, N. F | 55 parts |
| Althaea Root | 25 parts |
| Glycyrrhiza | 15 parts |
| Blue Mallow Flowers | 5 parts |

Make into coarse species. Used as infusion against coughs.

No. 481.

SPECIES AMARICANTES.

Species Amarae.

Bitter Species or Tea.

Bittertee.

Ph. Aust. VIII.

| | |
|---|---|
| Absinthium | |
| Bitter Orange Peel | |
| Centaury, N. F., of each | 20 parts |
| Calamus | |
| Gentian | |
| Menyanthes, N. F., of each | 10 parts |
| Cinnamon | 5 parts |

Make into coarse species. Used as a bitter tonic in the form of an infusion or macerated in wine or liquor.

No. 482.

SPECIES CARMINATIVAE.

Carminative Species or Tea.

Ph. Aust. VIII.

| | |
|---|---|
| Althaea | |
| Glycyrrhiza | |
| Triticum, of each | 20 parts |
| Matricaria | |
| Fennel, of each | 10 parts |

Make into coarse species.

No. 483.

SPECIES PUERPERALES.

Species Puerperarum.

Tea for Lying-in-Women.

Kindbettee.

Ph. Aust. VIII.

| | |
|---|---|
| Melon Seed | |
| Mullein Flowers, N. F., of each | 10 parts |
| Glycyrrhiza | |
| Triticum, of each | 20 parts |
| Althaea Species | 40 parts |

Make into coarse species. Used as a demulcent infusion in confinement.

No. 484.

SPECIES STOMACHICAE.

Stomachic Species or Herbs.

Magentee.

Ph. Aust. VIII.

| | |
|---|---|
| Cinnamon | |
| Peppermint, of each | 1 part |
| Centaury, N. F | 2 parts |

Make into coarse species. Used as carminative and tonic either as infusion or by maceration, in wine or liquor.

No. 485.

SPECIES AD GARGARISMA.

Herbs for Gargling.

E. B. III.

| | |
|---|---|
| Althaea Leaves, N. F | |
| Mallow Leaves, N. F | |
| Sambucus, N. F | equal parts. |

Make into coarse species. Used as a gargle in the form of an infusion.

No. 486.

SPECIES AD LONGAM VITAM.

Long Life Herbs.

Schwedische Kraeuter.

Bitterer Ansatz.

E. B. III.

| | |
|---|---|
| Aloe, granulated | 6 parts |
| Myrrh, granulated | |
| Rhubarb | |
| Gentian | |
| Galanga, N. F | |
| Zedoary, N. F | |
| Crocus, N. F | |
| Theriac, of each | 1 part |
| Agaric, N. F | 2 parts |

Triturate theriac with coarsely ground agaric and mix with aloe and myrrh and other drugs previously cut.

A very popular remedy, especially among foreigners. About 50 Gm. are macerated in 500 mils of liquor, wine or cider during 3 days and then strained. Dose: A teaspoonful 3 times a day as a stomachic tonic and against other ailments.

No. 487.

SPECIES ANTIASTMATICAE.

Asthma Species or Herbs.

E. B. III.

| | |
|---|---|
| Stramonium | 63 Gm. |
| Lobelia | 12 Gm. |
| Potassium Nitrate | 25 Gm. |
| Water | 50 mils |
| Oil of Lavender, a sufficient quantity | |

The drugs, previously cut, are moistened with a solution of the saltpeter in hot water. The mixture is then well dried at about 40° C.

To each 100 Gm. of the dried Species add 4 drops of Oil of Lavender, which is best previously dissolved in a little Alcohol.

Used in asthma by inhaling the smoke from the burning powder.

No. 488.

SPECIES ANTHELMINTHICAE.

Worm Species or Tea.

D. M.

| | |
|---|---|
| Absinthium, N. F | |
| Farfara, N. F | |
| Santonica, U. S. P. VIII | |
| Matricaria | equal parts |

No. 489.

SPECIES GYNAECOLOGICAE MARTIN.

Confinement Species.

Martin's Tea.

E. B. III.

| | |
|---|---|
| Senna | |
| Frangula | |
| Millefolium | |
| Triticum, equal parts | |

Make into coarse species. Used as a demulcent and mild laxative in the form of an infusion.

No. 490.

SPECIES NERVINAE.

Nervine Tea.

E. B. III.

| | |
|---|---|
| Peppermint | |
| Menyanthes, N. F | |
| Valerian | equal parts |

Make into coarse species.

No. 491.

SPECIES PECTORALES CUM FRUCTIBUS.

Breast Tea with Fruits.

E. B. III.

| | |
|---|---|
| Pectoral Species, N. F | 16 parts |
| Barley, peeled | 4 parts |
| St. John's Bean | 6 parts |
| Fig, N. F | 3 parts |

Cut fig and St. John's bean coarsely and

mix with other ingredients. A modification of "Breast Tea," still in demand.

No. 492.

SPECIES RESOLVENTES.

Reducing Species or Herbs.

E. B. III.

Melissa Leaves.....
Origanum Herb, of each..... 7 parts
Lavender Flowers.....
Sambucus, N. F.....
Matricaria, of each..... 2 parts

Make into coarse species. Used as a softening poultice.

No. 493.

SPECIES SUDORIFICAE.

Sudorific Herbs.

Especes Sudorifiques.

Codex 1884.

Sarsaparilla.....
Sassafras.....
Guaiac Wood.....
Cinchona..... equal parts

Prepare coarse species.

No. 494.

SPECIES DEMULCENTES.

Demulcent Tea.

Ph. Dan.

Althaea..... 4 parts
Glycyrrhiza..... 1 part
Linseed..... 4 parts
Fennel..... 1 part

The cut roots and crushed seeds are mixed.

No. 495.

SPECIES VULNERARIAE.

Vulmerary Herbs.

Especes Vulneraires.

The Suisse.

Codex 1908.

Absinthium, N. F.....
Betonica.....
Calamintha.....
Chamaedrys.....
Hyssopus.....
Glechoma Hederacea.....
Origanum.....
Vinca Minor.....
Rosmarinus.....
Salvia, U. S. P. VIII.....
Scolopendrium.....
Scordium.....
Thymus, N. F.....
Veronica.....
Arnica, U. S. P.....
Gnaphalium Dioicum.....
Farfara, N. F..... equal parts

Prepare coarse species. This is an excellent example of polypharmacy and also of the odd drugs employed by other nations. Among the 17 ingredients only 1 drug is official in U. S. P. IX, 1 drug was official in U. S. P. VIII and has been deleted and 3 drugs are official in N. F. IV. A number of the ingredients are undoubtedly unknown to the average pharmacist. All of these plants are, of course, official in the French Codex. The botanical titles, rather than the English names, are given, so as to prevent any confusion.

No. 496.

SPECIES APERIENTES.

Aperient Species.

Ph. Hisp. & Port.

Radix Apii.....
Radix Asparagi.....
Radix Foeniculi.....
Radix Petroselini.....
Radix Rusci Aculeati..... equal parts

This is another rather odd or "Spanish" combination of peculiar drugs. On account of the "Five Roots" this mixture also has the synonym *Radices Quinque Aperitivae*. To prevent confusion the Latin titles are given.

No. 497.

SPECIES NARCOTICAE.

Narcotic Species or Herbs.

Ph. Russ. IV.

Belladonna Leaves..... 1 part
Hyoscyanus..... 2 parts
Conium Leaves..... 4 parts

Prepare coarse species.

No. 498.

SPECIES ANGLICAE.

English Species or Tea.

D. M.

Caraway..... 25 Gm.
Bitter Orange Peel..... 25 Gm.
Frangula..... 150 Gm.

Make into coarse species.

No. 499.

SPECIES BALNEORUM.

Bath Herbs.

Badekraeuter.

D. M.

Peppermint.....
Matricaria.....
Thyme, N. F.....
Rosemary.....
Sage, U. S. P. VIII, of each..... 100 Gm.
Alcohol, 90 per cent..... 250 Gm.

The mixture of herbs is moistened with the alcohol, whereby the bulk of the package is materially decreased, and the appearance of the species and especially their odor is greatly improved. One package to a bath.

# PROCEEDINGS OF THE LOCAL BRANCHES

"All papers presented to the Association and its branches shall become the property of the Association, with the understanding that they are not to be published in any other publication than those of the Association, except by consent of the Committee on Publication."—By-Laws, Chapter X, Art. III.

Reports of the meetings of the Local Branches should be mailed to the Editor on the day following the meeting, if possible. Minutes should be *plainly* written, or typewritten, with wide spaces between the lines. Care should be taken to give proper names correctly, and manuscript should be signed by the reporter.

## BALTIMORE.

The March meeting of the Baltimore Branch of the American Pharmaceutical Association was called to order by the President, Robert S. McKinney, in Harris Hall, of the University of Maryland, on March 21, 1917.

Upon motion of Dr. Chas. Caspari, Jr., the motion being duly seconded, the reading of the minutes of the February meeting was omitted.

A letter from the Columbus Branch of the American Pharmaceutical Association inviting consideration of the resolutions they had adopted, in which they opposed any increase in the annual dues of the Association and approved the continued publication of the Year Book, was read by the Secretary. It was moved and seconded that the discussion of this letter be postponed until the next meeting.

A request for papers to be read before the Scientific Section during the annual meeting of the A. Ph. A. was received from Dr. W. W. Stockberger, of Washington, D. C., and President McKinney urged the members of the Branch to contribute such papers.

As the Branch considered that the members of Congress are absorbed in dealing with the grave matters that now confront our nation, action was postponed in regard to a letter from the Columbus Branch of the A. Ph. A. denouncing the misuse of the Copyright and Patent Laws of the United States for the exploitation of foreign products, and requesting that the local Branch petition our Representatives in Congress to enact such legislation as would free this country from this foreign exploitation.

Dr. John F. Hancock, whose long and active career brought him in contact with the pioneers of pharmacy in Maryland, then gave some "Reminiscences of the Early Days of Pharmacy in Maryland," including a history of the early life of the Maryland College of Pharmacy. He related how the College of Pharmacy was first started in 1840, and that after two classes had been graduated, it lapsed and was not reorganized until 1856. He told how the preparation for the entertainment of the American Pharmaceutical Association, which met in Baltimore in 1856, aroused interest in pharmacy in Maryland and caused the reorganization of the Maryland College of Pharmacy. He reminded us that Dr. Van Dyke Stewart was the first professor of pharmacy in the United States, stating that Dr. Stewart received the degree from the University of Maryland in 1844 and was then elected professor of Theoretical and Practical Pharmacy in the Maryland College of Pharmacy. Reference was made to the fact that in 1856, Mr. Israel Graham of Maryland was the pioneer who first experimented with the manufacture of fluidextracts by percolation. He spoke of the great work of William Procter, Jr., a Baltimorean by birth, and also of the work of scores of other pioneers of pharmacy in Maryland.

Dr. Hancock is now compiling a paper for the Historical Section of the American Pharmaceutical Association, dealing with the early history of pharmacy in Maryland, which will probably be presented at its next annual meeting.

The interesting talk given by Dr. Hancock caused several of the other members—Dr. Chas. Caspari, Jr., Mr. John B. Thomas and Mr. Louis Schultze—to speak of their early experiences in pharmacy.

Upon motion of Mr. Jno. B. Thomas, a rising vote of thanks was tendered Dr. Hancock for his excellent presentation of the matter and the meeting was adjourned.

B. OLIVE COLE, *Secretary.*

## CHICAGO.

The Chicago Branch American Pharmaceutical Association met in regular monthly

meeting Friday evening, February 23, at Kuntz-Remmlers, following supper at 6.30.

Mr. L. D. Jones presented a new device for introducing breathing in new born infants afflicted with asphyxia neomonatorium or for resuscitating infants or little children with asphyxia from other causes. His talk was well received.

The principal subject of discussion was the report submitted by Dr. J. H. Beal for the committee appointed at the January meeting to consider the matter of Compulsory Health Insurance.

In concluding his report, Dr. Beal stated that this subject of Compulsory Health Insurance was the most deserving of study of any legislation yet placed before the druggist. It is more important than the Food and Drugs Act or the state pharmacy acts. Either it sounds the death-knell of what little drug business remains to the pharmacist or it restores to him a real drug business.

Dr. Bernard Fantus endorsed the report as whole, especially the recommendation that we continue to study the whole subject in a purely judicial frame of mind, and to reach conclusions that shall be as nearly as possible devoid of partisan bias or prejudice growing out of our professional relations to the sick. He considered that it would be a most suicidal policy to antagonize the bill just because it would take the bread and butter from our mouths. The position of the physician, pharmacist and nurse should be definitely assigned and defined in the bill before we can offer intelligent criticism. The interested professions should be prepared to offer suitably drawn sections covering their ideas as to the positions these professions should occupy under the laws.

Many others took part in the discussion, though the general opinion seemed to be that the subject required extensive study and that hasty action on the part of state legislatures to enact such a bill into law should be deprecated and strongly opposed.

It was moved by W. B. Day and seconded by Thos. H. Potts that the report of the committee with recommendations be endorsed and referred to Editor Eberle for publication and that a vote of thanks be extended to the chairman and his colleagues for the excellent report.[1]

E. N. GATHERCOAL,
*Secretary.*

[1] The report was printed in the March number of the JOURNAL, pp. 314–317.

## NASHVILLE.

The regular monthly meeting of the Nashville Branch of the American Pharmaceutical Association was held in joint session with the Nashville Drug Club, March 15, 1917, D. J. Kuhn, presiding. Besides a good turn-out of members, there were representatives present from the Retail Grocers' Association and Retail Furniture Dealers' Association.

The minutes of the previous meeting were read and approved. Judge J. H. Zarecor spoke on "License and Taxation," explaining the different methods used by the government to raise revenue, among others the collection of taxes from retail merchants for the privilege of doing business in the state. He stated that foreign companies, such as the Larkin Company, were doing business in the state in competition with the local merchants without paying any tax whatever, claiming to be exempted on account of doing an interstate business. According to him, these foreign companies are liable to taxation and some steps should be taken to enforce this law. The question was discussed at some length by M. T. Mallon, of the Grocers' Association; Walter Sanford, of the Furniture Dealers' Association, and Ira B. Clark, D. S. Sanders, S. C. Davis and C. S. Martin. A committee was appointed, consisting of D. S. Sanders, S. C. Davis and D. J. Kuhn, to confer with the Grocers' and Furniture Dealers' Associations in order to take some concerted action against this unfair competition. They were also given the power to fight against the alleged formation of an Ice Trust for the advancement of the price of ice.

Resolutions were read from the Columbus Branch of the A. Ph. A., urging Congress to amend the patent laws, and were unanimously adopted, copies to be sent to the representatives in Congress. Discussions followed on the effect of the expiration of the patent on aspirin and uses and limitations of denatured alcohol. C. S. Martin suggested that if physicians would prescribe alcohol and combine it with some denaturizing substance, no federal or state taxes would be required in order to handle it. W. R. White thought that a small percent of iodine might prove a good agent to denaturize it for antiseptic purposes. E. J. Schott, Ira B. Clark and S. C. Davis were appointed a committee to investigate the subject and visit the Academy of Medicine and discuss it with them.

WILLIAM R. WHITE,
*Secretary.*

NEW YORK.

The January 1917 meeting of the New York Branch of the American Pharmaceutical Association was called to order by President Lascoff in the library of the New York College of Pharmacy on Monday, January 8, at 8.30 P.M.

Twenty-six members were present.

The minutes of the previous meeting were approved as read by the Secretary.

The Treasurer's report was accepted with thanks.

Member of the Council, Mr. McElhenie, was not present and no report was rendered.

Chairman McCartney, of the Membership Committee, presented the applications for membership in the parent body of John D. F. Dreyer, 41 John Street; George E. Fitzsimmons, 1045 Lexington Avenue; William E. Gifford, 203 Fulton Street; Charles A. Loring, 145 Front Street, all of New York, and William F. Morgan, 136 Meserole Avenue, Brooklyn, N. Y., and Miss M. A. O'Connor, 19 Church Street, White Plains, N. Y., as well as the application of Mr. C. L. Eddy, for membership in the Branch.

The report was accepted with thanks and the Secretary was ordered to forward the six applications to General Secretary Day.

*Committee on Legislation and Education.*—Dr. Anderson being absent, no report was received.

*Committee on Fraternal Relations.*—Chairman Diner explained what was being done by the County Medical Society in preparation for the joint meeting and moved that the Secretary send invitations to all members of the American Pharmaceutical Association and other pharmaceutical organizations, and that the pharmaceutical press be urged to feature the meeting.

The report and motion were adopted.

*Progress of Pharmacy.*—Dr. Diekman read a very interesting report which led to an animated discussion.

Mr. C. O. Bigelow reported on the narcotic hearing held before the Legislative Committee and Chairman Holzhauer of the Nominating Committee presented the following nominees:

*President,* Joseph L. Mayer; *Vice-President,* F. L. McCartney; *Treasurer,* Joseph Weinstein; *Secretary,* Hugo H. Schaefer; *Member of the Council,* Jeannot Hostmann; *Chairman, Committee on Education and Legislation,* Charles Lehman; *Chairman, Committee on Progress of Pharmacy,* George C. Diekman; *Chairman, Membership Committee,* Herman Walter; *Chairman, Committee on Fraternal Relations,* Jacob Diner.

The report was adopted and the Committee discharged with thanks.

The Secretary read an invitation to attend the dinner of the Bronx County Pharmaceutical Association and on motion same was placed on file and the members urged to attend.

The resignation presented by Mr. Lorenz Canton was accepted.

The Secretary then read the following communication:

DEAR SIR:

At the last meeting of the Philadelphia Branch, during a discussion on the question, "What Disposition Shall be Made of the Year Book?" the following points were emphasized:

1. The A. Ph. A. gives each member more than his dues will pay for, hence each year there is a deficit. This must be met with an increase in revenue or decrease of expenditures. The former can be brought about only by an increase of dues; the latter, most feasibly either by discontinuing the Year Book, or publishing it in the JOURNAL from time to time.

2. The continuance of the Year Book is absolutely necessary for the progress of American Pharmacy, for it is only by the use of this and allied works that any progress is made. Were it not for this systematized and carefully indexed account of what has been done, information which can now be obtained in a few moments, would only be available after an extended, time-and-patience-consuming search through many journals.

In accordance with this view, the following resolution was proposed and adopted:

RESOLVED, That the Philadelphia Branch go on record as favoring the continuance of the JOURNAL and the Year Book as at present, and that any deficit which might occur be met by an increase in dues; and further, that the Secretary be instructed to send copies of this resolution to the Council and to the Secretaries of the various local branches.

Very truly yours,

(Signed) J. ED. BREWER,
*Secretary.*

After a very spirited discussion, the following motion made by Professor Arny was adopted: That the President appoint a committee of three to study the question raised in the resolutions passed by the Philadelphia Branch,

said committee to report at the next regular meeting and that the Secretary of the Branch notify the secretaries of all branches of this action.

President Lascoff appointed the following to be such a committee: H. V. Arny, F. L. McCartney, Jeannot Hostmann.

Mr. C. L. Eddy, who had been proposed for membership in the Branch, was then regularly elected.

*Election of Officers.*—Upon motion, President-elect Charles Holzhauer of the parent association was called upon by President Lascoff to cast a ballot regularly electing the candidates presented by the Nominating Committee. Mr. Holzhauer so voted, and the aforementioned candidates were declared to be duly elected.

Dr. Diner, as Chairman of the delegation to the meeting of the American Metric Association, rendered his report which was accepted with thanks.

The Secretary read his report, bringing out among other points, that 108 members had been elected during the year and that four had resigned, leaving a net membership of 252. This report was ordered filed.

President Lascoff asked Messrs. Turner and Horstman to escort the newly elected officers to their chairs.

A vote of thanks was extended to the outgoing officers and the meeting then adjourned.

JEANNOT HOSTMANN,
*Secretary.*

A joint meeting of the Medical Society of the County of New York and the New York Branch of the American Pharmaceutical Association was held February 20, 1917, in Hosack Hall, New York Academy of Medicine, 17 West 43rd Street.

The meeting was opened at 8.45 P.M. by Dr. J. Bentley Squier, President of the Medical Society of the County of New York, in the chair.

About fifty members were present.

*Scientific Program.*

"The Modern Trend of Professional Pharmacy," by George C. Diekman, M.D.

"The Physician's Vital Need," by Jacob Diner, M.D.

"Stemming the Tide." by Walter A. Bastedo, M.D.

"Facing the Future," by Daniel S. Dougherty, M.D.

The following resolutions were presented by Dr. Dougherty and discussed by Dr. Weiskopf:

WHEREAS, Professional pharmacy, judged by what we have heard tonight, seems to be in a condition to be much deplored; and

WHEREAS, Pharmacy and pharmacists are essential to the practitioner of medicine and his co-operation essential to the welfare of the pharmacists; and

WHEREAS, The suggestions presented for the correction of the existing evils seem to be practical and promising.; therefore be it

RESOLVED, That a committee of six be appointed, three by the President of the Medical Society of the County of New York and three by the President of the New York Branch of the American Pharmaceutical Association, to study the subject and devise ways and means to place pharmacy on a proper basis and establish a closer co-relation between the pharmacist and physician.

This committee to report at such time and place and in such manner as may be determined by the Presidents of the respective bodies.

On motion duly made and seconded, the resolutions were adopted.

HUGO H. SCHAEFER,
*Secretary.*

The March 1917 meeeting of the New York Branch of the American Pharmaceutical Association was called to order by President Mayer in the library of the New York College of Pharmacy, on Monday, the 12th, at 8.30 P.M. Fifty-one members were present.

The minutes of the January and February meetings were read and approved.

A motion was made, seconded and carried that the President be authorized to appoint a committee of three to co-operate with a similar committee of the Medical Society of the County of New York in accordance with the resolution adopted at the February meeting.

President Mayer appointed the following members to constitute this committee: Jacob Diner, J. H. Rehfuss, Robert G. Lehman.

The Treasurer's report was read and accepted.

After some discussion, upon motion duly seconded and passed, the Treasurer was authorized to drop from the membership list of the Local Branch at his and the Secretary's discretion, such members who owed dues for over two years.

Mr. Latham volunteered to personally interview members who were delinquent in paying dues and try to collect same.

*Member of the Council.*—Professor Hostmann's report was accepted with thanks.

Chairman Walter, of the *Membership Committee*, presented the applications for membership in the parent association of Jacob Feldman, 321 Pleasant Avenue; Miss Fanchon Hart, 115 West 68th Street; Theodore R. L. Loud, 270 Ft. Washington Avenue; Julius Ginsberg, 333 East 16th Street, care Herman; Jack N. Casavis, 115 West 68th Street; Charles T. Dill, 167 West 143rd Street, all of New York, and Robert G. Kissick, 199 Lincoln Place, Brooklyn, N. Y.; H. H. Sherwood, 39th Street and 2nd Avenue, Brooklyn, N. Y.

The report was accepted with thanks and the Secretary was ordered to forward the eight applications to General Secretary Day.

*Committee on Education and Legislation.*—Mr. Mayo being absent, no report was received.

*Committee on Fraternal Relations.*—Dr. Diner's lengthy report on the February Joint Meeting was accepted.

*Special Committees.*—The special committee headed by Dr. Arny appointed to study the question raised by the resolution of the Philadelphia Branch reported in great detail. Appended to the report were the following resolutions:

RESOLVED, That the New York Branch of the American Pharmaceutical Association does not favor an increase in the dues of the Association as favored by the Philadelphia Branch, since it feels that such increase in dues will tend to drive away much of the membership gained during the past few years;

RESOLVED, That this Branch does not favor the abolition of either the JOURNAL or the Year Book for the same reason that it does not favor an increase in dues;

RESOLVED, That we feel the financial problems confronting the Association should be solved by increasing the membership of the Association and the advertising patronage of the JOURNAL and we stand ready in the future as in the past to aid the Association in these directions;

RESOLVED, That if economy is absolutely essential, this economy should be accomplished by curtailments of the expenses of the JOURNAL.

RESOLVED, That a copy of these resolutions and of this report be sent to the President, Secretary and Treasurer of the Association, to the Chairman of the Council, to the Chairman of the Committee on Publication, and to the secretary of each local branch of the Association.

After considerable discussion, the report was accepted with the thanks of the Branch and the resolutions were adopted as embodied in the report.

*Communications.*—The Secretary read a communication from Mr. Charles Lehman, stating that it would not be possible for him to accept the chairmanship of the Committee on Education and Legislation to which he had been duly elected at the January meeting. President Mayer then appointed Mr. Mayo to fill this position.

A number of other communications were ordered accepted without being read.

*New Business.*—Dr. Diner reported the death of Dr. William C. Alpers and moved that, in view of the fact that he was the first President of the local Branch, and an active leader in pharmacy, a committee of three be appointed to draw up suitable resolutions. This was seconded and duly carried. President Mayer appointed the following as members of such a committee: Dr. Diner, Dr. Weinstein, Mr. Latham.

Dr. Coblentz read a very interesting paper on "The Chemicals of the New Pharmacopoeia," dwelling chiefly upon the tests of the U. S. P. IX.

Mr. Rippetoe then read a paper on the same subject. He brought out a number of interesting facts and inconsistencies in the new Pharmacopoeia.

The discussion following the reading of these papers was lead by Professor LaWall. He answered a number of points brought out by the two preceding speakers and also explained why certain changes had been made in the revision. Considerable further discussion followed.

A motion was made and carried that the three speakers be accorded a rising vote of thanks by the Branch.

Upon motion, it was then voted to adjourn, subject to the call of the chair.

HUGO H. SCHAEFER, *Secretary.*

## NORTHWESTERN.

The Northwestern Branch of the American Pharmaceutical Association met in conjunction with the Scientific and Practical Section of the Minnesota State Pharmaceutical Association at 2.00 P.M., February 14, in the Hotel Saint Paul, St. Paul, Minn. Dean F. J. Wulling, chairman of the scientific section

of the State Association, and President of the American Pharmaceutical Association, convened the meeting.

The following program of the scientific section was carried out:

1. A symposium on the U. S. P. IX was opened and closed by C. H. Bollinger, and on the N. F. IV opened and closed by F. A. Upsher Smith. A number of pharmacists took part in the discussion.
2. "Prescription Pricing," by Robert L. Morland.
3. "Duty of the Public to the Pharmacist," by R. J. Messing.
4. "Prescriptions and Prescription Compounding," by H. Martin Johnson.
5. "Report of the Committee on Adulteration," by Professor Gustave Bachman.
6. "Fractional Percolation," by O. J. Blosmo.
7. (*a*) "The 1916 Results of Medicinal Plant Cultivation for Educational Purposes at the College of Pharmacy, University of Minnesota.
   (*b*) "A New Source of Supply for Ergot."
   (*c*) "The JOURNAL and the Year Book of the A. Ph. A.," by Dr. E. L. Newcomb.
8. "Report of Committee on College of Pharmacy," by Chairman A. J. Kline.

At the conclusion of the program the Branch held a business meeting, at which time the following officers were elected for the coming year:

*President*, Mr. Truman Griffin, Minneapolis; *Vice-President*, C. H. Bollinger, St. Paul; *Secretary-Treasurer*, Chas. H. Rogers, Minneapolis; *Executive Committee*, F. A. U. Smith, Chairman, St. Paul; F. M. Parker, St. Paul; W. S. Smetana, Hopkins; E. A. Tupper, Minneapolis.

C. H. ROGERS, *Secretary*.

## SAN FRANCISCO.

The San Francisco Branch of the American Pharmaceutical Association met March 8, 1917, at 416 Hayes Street. In the absence of President Lengfield, Vice-President Jennie M. White presided. Communications from the Columbus Branch on "Copyright and Patent Laws" and on "An Assumed Deficit in the National Organization" were read. Definite action was deferred until the April meeting.

The informal discussion centered on a recently published article on the "Preparation of Dakin's Solution." It is claimed that the unsatisfactory results obtained in various hospitals has been attributed to an incorrect formula and to faulty technic. A clear, concise and accurate method is given by Dr. A. Carrel in the December issue of the Journal of the American Medical Association. Many other references were quoted.

The manufacture of tablets by the pharmacist was made the subject for the evening. The object of the discussion was to point out the importance of equipment of this kind—one or two tablet moulds and a small tablet machine. With these and a certain amount of experience a pharmacist should be able to utilize stock on hand in addition to supplying unobtainable ready-made tablets. The work is interesting and should be a part of every prescription pharmacy.

The Branch will meet again on Thursday evening, April 12, 1917. The place of meeting has not been definitely decided, but plans are being made to meet permanently in the City of Paris Building.

CLARISSA M. ROEHR, *Secretary*.

## PHILADELPHIA.

The February meeting of the Philadelphia Branch of the American Pharmaceutical Association was held at Temple University. The assay processes, both chemical and biological, of the U. S. P. IX, were discussed. The speakers of the evening were Professors C. E. Vanderkleed, Charles H. LaWall and Doctors William A. Pearson and Paul S. Pittenger.

A discussion of the subject of the assay processes of the U. S. P. IX was opened by C. E. Vanderkleed who called attention to the advantages of the maximum and minimum standard provision of the new Pharmacopoeia over the old absolute standards of the 8th revision. The tendency of the new U. S. P. assay directions to be less empirical and to leave more to the intelligent judgment of the operator was praised. He pointed out that the number of assayed and standardized preparations of vegetable drugs was not increased in the U. S. P. IX but that by the process of cross referencing, space for the description of assay processes has been saved and the methods made somewhat more nearly uniform. He heartily approved of the adoption of the "saw-dust" method for several of the preparations and expressed the opinion that some other preparations particularly those of Hyoscyamus might well have been added to the list of those assayed by the saw-

dust method. He commented upon the return to a total alkaloid standard for the preparations of Nux Vomica and indicated a preference of Methyl Red as an indicator for use in the titration of most vegetable alkaloids. Professor LaWall said that a consideration of the inorganic chemicals of the U. S. P. would be incomplete without a study of the guiding statements in the preface of the U. S. P. IX. Among the general principles adopted by the Convention in May 1910, to be followed by the Revision Committee, the most important one was on page xxxii of the preface in which it says that "The Purity Rubric, which limits the percentage of inocuous impurities, as introduced into the Eighth Revision, should be continued, and tests and requirements should be appended to each article carrying a purity rubric."

In the U. S. P. VIII, which must be looked upon as the foundation for the U. S. P. IX, a foundation wisely and skilfully built, for the most part, many substances had been described with purity rubrics, with no method of assay or other means of knowing whether the articles complied with the requirements. Among these may be mentioned alum, ammonium benzoate, calcium carbonate, lead acetate, phosphorus, potassium nitrate, sulphur, sodium phosphate and zinc sulphate, to give an idea of the wideness of the range.

For all of these substances for which a suitable assay process was available, it was provided. In those cases where none could be found nor devised, the rubric was dropped and the quality of the article protected by limiting tests. This has been done in the case of phosphorus, for example. In all of the other cases mentioned, and indeed, with one or two exceptions, the rubric has been continued and a suitable assay process provided.

Another important paragraph in the preface which has an influence upon the interpretation of results of examination of chemical substances is that on page xlv: "Standards of purity and strength prescribed in the text of this Pharmacopoeia are intended solely to apply to substances which are used for medicinal purposes or in determining the identity and purity of such substances."

Also on page xlvi are important paragraphs elucidating and explaining the purity rubric fully, referring to the range of strength provided for chemicals containing water of crystallization and requiring that the official assay process only be used for substances described in the book.

In the chemical tests the careful observer will notice that a definite plan of arrangement has been consistently followed. First, the physical characters are described, then follow identification tests, later the tests for prohibited impurities or limiting tests for those permitted and finally the assay process for determining the percentage of purity.

In connection with the details of the quantitative tests it will be seen that several important changes have been made in the handling of the directions for carrying out the processes. It is assumed that the person who carries out the tests has had sufficient elementary training to render unnecessary the inclusion of detailed directions for calculating the results.

Another important change in the interests of accurate results was made in, that instead of requiring the weighing of an exact specified quantity, which is always difficult and sometimes impossible on account of alterations during weighing, it is directed to take an amount approximating the desired quantity and weigh it accurately. There was great difficulty in getting this simple plan approved by the General Committee, as those not engaged in chemical work could not understand the points involved and thought that anybody ought to be able to weigh out exactly a gramme of anything without any trouble.

Another important change in the policy of the U. S. P., affecting many chemical substances, is the one permitting a range of strengths where an absolute invariable strength was required in former editions. For instance, in the U. S. P. VIII, diluted hydrochloric acid was required to contain exactly 10 percent HCl. Now it is required to contain not less than 9.5 percent nor more than 10.5 percent HCl. This is in the interest of the retail pharmacist wherever it occurs, as it specifies legally the leeway, variation or tolerance that should guide an official in authorizing a prosecution for an article not in compliance with the official requirements. Formerly this was a matter of personal opinion, and on this account injustice was frequently done to pharmacists by drug commissioners who had no knowledge of pharmacy.

One of the evils we still have with us is due to the apathy or ignorance of the retail pharmacist. It is the continued acceptance and use for official purposes, *i. e.*, use in prescription work and in making U. S. P. preparations, of chemicals sold under such ambiguous titles as "dried and powdered," where ex-

siccated salts are ordered or meant and chemicals deviating in some way from the requirements of the U. S. P. and sold with the qualification "For technical use." Many chemicals, thus designated, and deviating markedly in some particular from the requirements of the U. S. P., are used heedlessly or carelessly for pharmaceutical work. Pharmacists should be alert and further their own interests and that of their patrons by unhesitatingly rejecting all such goods unless they are actually to be used for technical purposes, as designated.

Doctors Paul S. Pittenger and William A. Pearson spoke on the biologic assays of the Pharmacopoeia and the various assays were discussed with emphasis on the weak points which they considered present in the proposed methods. The fact was brought out that the U. S. P. methods in many instances lacked the details which workers in practical laboratories have found essential in order to obtain accurate results, and, therefore, do not show as well as they might the degree of efficiency to which biologic assay methods have been developed.

On Tuesday evening, March 13, the monthly meeting of the Philadelphia Branch was held in the chemistry lecture room of the Philadelphia College of Pharmacy with Dr. Julius Sturmer in the chair.

The routine business included the submitting before the body of two letters from the Columbus Branch, one referring to the Year Book decision of the local Branch and the other embodying a number of resolutions bearing on a revision of the Patent laws, both letters being turned over to the respective committees for further consideration. The feature of the evening was the lecture by Professor Henry Kraemer, an exceedingly interesting and enlightening topic, dealing with "The Microscope in the Hands of the Pharmacist," and the subject was presented with the speaker's usual dexterity in handling such a theme. A fine display of Kraemer-made and Kraemer-colored slides added much to the value as well as to the interest of the paper. After further discussion of Professor Kraemer's subject, participated in by Dr. Sturmer, Prof. LaWall and Apothecary Hunsberger, a short paper on the new antiseptic solutions, Dakin's and modifications thereof, was read by Editor Eberle, of the JOURNAL, and commented on by Sister Mueller, Professors LaWall and Kraemer, Apothecary Hunsberger and others. Dr. Thum, of the German Hospital, had expected to be present to deliver a paper on these new ideas in wound cleansing but was prevented from attending through death in his family, and is expected to bring the matter up for further discussion at the next Branch meeting.

The following officers for the coming year were placed before the Branch by the Committee on Nominations and were unanimously elected:

*President*, Ambrose Hunsberger; *First Vice-President*, J. R. Minehart; *Second Vice-President*, Quintus Hoch; *Secretary and Treasurer*, Ivor Griffith; *Committee on Practical Pharmacy*, J. C. Peacock, *Chairman*, E. Fullerton Cook and W. W. McNeary; *Committee on Fraternal Relations*, J. R. Minehart, *Chairman*, F. E. Stewart and W. L. Cliffe; *Committee on Membership*, R. P. Fischelis, *Chairman*, J. W. England and J. Atlee Dean.

IVOR GRIFFITH, *Secretary*.

## CITY OF WASHINGTON.

The February meeting of the Washington Branch was devoted to a discussion of the disposition to be made of the Year Book and a committee was appointed to consider the matter and render a report at the March meeting. A communication from the Columbus Branch was discussed by Mr. Hilton and members of the Association and the Secretary was instructed to notify the Columbus Branch that no action could be taken in response to their communication as the matter in hand was not subject to any rule of the Council, but had been recommended by the Association as a whole.

H. C. FULLER, *Secretary*.

# COMMITTEE REPORTS

## PREAMBLES AND RESOLUTIONS RELATING TO REVISION OF U. S. COPYRIGHT AND PATENT LAWS.*

WHEREAS, The object of the Copyright and Patent Laws, as defined by the Constitution of the United States,[1] is to promote progress in science and useful arts, and

WHEREAS, Copyrights and patents are grants conferring upon authors and inventors the right to prevent others copying their respective writings and discoveries for limited times, and

WHEREAS, The Patent Law requires that inventions to be patentable shall be new and useful, and shall not have been published in this or any foreign country prior to application for patent, and

WHEREAS, The Patent Law also requires that the application for patent shall contain full knowledge of the invention, including a description of the same, and of the manner of preparing and using it, in such clear and concise language as to permit any person skilled in the art to which the invention belongs to produce the same invention, and

WHEREAS, The proper application of the Patent Law requires that the invention shall be provided with a name by which it may alone be recognized and dealt in, and that such name shall be currently employed by those engaged in the manufacture and sale of said invention, and shall become a noun of the common language, to be freely used by all after patent expires, and

WHEREAS, This fact has been recognized by several decisions of the United States Supreme Court, including its decision in the Singer Sewing Machine case in 1895, which reads as follows:

> "The result, then, of the American, the English, and the French doctrine, universally upheld is this, that where, during the life of a monopoly created by a patent, a name, whether it be arbitrary or be that of the inventor, has become, by his consent, either express or tacit, the identifying and generic name of the thing patented, this name passes to the public with the cessation of the monopoly which the patent created. Where another avails himself of this public dedication to make the machine and use the generic designation, he can do so in all forms, with the fullest liberty, by affixing such name to the machines, by referring to it in advertisements and by other means, subject, however, to the condition that the name must be so used as not to deprive others of their rights or to deceive the public, and therefore that the name must be accompanied with such indications that the thing manufactured is the work of the one making it, as will unmistakably inform the public of that fact."

and

WHEREAS, The object of the trade-mark law is to protect the public from the fraudulent substitution of one brand of an article for another brand of the same article, and is not intended

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* This draft was prepared by Dr. F. E. Stewart, chairman of the Committee on Patents and Trade-marks, A. Ph. A., for Dr. S. Solis Cohen, Chairman of the Committee on Scope, U. S. P. IX. It was also submitted in the report of the Committee on Patents and Trade Marks, of the Merchants' and Manufacturers' Association of Philadelphia, composed of Ernest T. Trigg (President Philadelphia Chamber of Commerce), Charles A. Wagner and Dr. F. E. Stewart, and approved. The matter in italics is suggested for revising the present U. S. Copyright and Patent Laws, and the subject is submitted for study by the members of the American Pharmaceutical Association, preparatory to its discussion at the next annual convention. The Committee received instructions at the last meeting to proceed with the revision, and the Chairman is desirous that the subject be carefully considered from every viewpoint.

The Committee believes that all ambiguity now existing in the law should be removed in the revision. Provision should also be made in the law so that the inventor of a new process can secure a royalty from the original patentee. Attention is again directed that matter in italics embody the suggestions of the Committee for additions to the copyright, patent and trade-mark laws.—EDITOR.

[1] Article I, Section 8, Clause 8.

to create and foster monopoly, but rather to promote competition in the manufacture and sale of articles of commerce, and

WHEREAS, "When an article is made that was theretofore unknown, it must be christened with a name by which it can be recognized and dealt in, and the name thus given it becomes public property, and all who deal in the article have a right to designate it by the name by which it alone is recognizable,"[2] and

WHEREAS, The present system of registration of alleged trade-marks permitted by the United States Patent Office, because of a misunderstanding in regard to the scope and extent of the trade-mark privilege, enables inventors of nothing but names to register the same as trade-marks, and afterwards use them as titles of the articles for which they are registered as trade-marks, and

WHEREAS, This system of registration protects and fosters monopoly in the manufacture and sale of the articles themselves, and enables their manufacturers to obtain privileges far more restrictive in character than permitted by the copyright and trade-mark laws, and thus defeats the object of the same by hindering progress in science and useful arts, and

WHEREAS, This has resulted in an anomalous condition in which we have apparently laws diametrically opposing one another, namely, the patent law which grants the inventor exclusive use of his invention for a limited time, and then only on the publication of exact knowledge of the invention, whereby the public may manufacture it when the patent expires, and the trade-mark law which does not require that the article to be protected shall be a new and useful invention, that permits unlimited monopoly of the manufacture and sale of the protected article, and that does not require that the composition and method of manufacture of the article shall be divulged, therefore, be it

*Resolved*, That we memorialize Congress, asking for a revision of the United States Patent, Copyright and Trade-mark Laws, whereby these laws shall clearly define the scope and limitations of patent, copyright and trade-mark privileges, to wit:

First, Section 7 of the Copyright Law shall be revised in such a manner as to include the subject matter contained in circular No. 19, issued by the Librarian of Congress, which reads as follows:

> "The Copyright Laws contain no provisions under which protection can be obtained upon a mere name or title. Entry cannot therefore be made in the Copyright Office for coined names; names of articles of manufacture; names of games or puzzles; names of substances, names of products, or names of medicines."

Section 7, as amended, shall read

> That no copyright shall subsist in the original text of any work which is in the public domain, or in any work which was published in this country or any foreign country prior to the going into effect of this Act and has not been already copyrighted in the United States, or in any publication of the United States Government, or any reprint, in whole or in part, thereof: Provided, however, that the publication or republication by the Government, either separately or in a public document, of any material in which copyright is subsisting, shall not be taken to cause any abridgement or annulment of the copyright or to authorize any use or appropriation of such copyright material without the consent of the copyright proprietor.
>
> (2) *That no copyright shall subsist in coined names, names of articles of manufacture, names of games or puzzles, names of substances, names of products, or names of medicines.*

Second, Section 4888 of the Patent Law shall be revised to read as follows:

> Sec. 4888.—Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combi-

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[2] Leclanche Battery Co. *vs.* Western Electric Co., 23 Fed. Rep. 227.

nation which he claims as his invention or discovery; *and in case of a chemical substance, medicine or food, he shall provide the same with a distinctive name which shall afterwards be used by him, his executors, administrators and assigns, as the principal title thereof on all labels, in all advertisements and in all literature relating to the product; and he shall manufacture and continue to produce the product by the patented process during the life of the patent, and by no other process unless he shall apply for a patent for the same, and in case a patent is granted for a new process, he shall announce the fact in at least three prominent medical and pharmaceutical journals, respectively, calling attention to the new process and giving the number and date of the patent thereof.* The specification and claim shall be signed by the inventor and attested by two witnesses.

*No patents shall subsist in coined names, names of articles of manufacture, names of games or puzzles, names of substances, names of products or names of medicines.*

Third, an addition shall be made to Section 19 of the Trade-mark Law, relating to what may be registered as a trade-mark, which shall read as follows:

*(a) No trade-mark will be registered for a new article of manufacture, chemical substance, medicine or food, unless a distinctive name shall accompany the application, for the use of those who would compete in manufacturing and vending the same article and also for the use of the public in purchasing the same.*

*(b) No trade-mark will be registered for names of articles of manufacture, names of games or puzzles, names of substances, names of products or names of medicines.*

WHEREAS, Many foreign countries exclude from patent protection inventions relating to medicines, including Germany, France, Austria-Hungary, Italy, Japan, Denmark, Norway, Sweden, Portugal, Russia, and a number of other countries, therefore, be it

*Resolved*, That Congress shall be memorialized to so amend the United States Patent Laws as to exclude from patent protection inventions of subjects or citizens of foreign countries, which do not grant similar patent privileges to citizens of the United States; therefore that the United States Patent Law shall contain a similar proviso to that at present contained in the Copyright Law relating to alien inventors, and shall read as follows:

*The inventor or discoverer of any invention or discovery made the subject of patent by this Act, or his executors, administrators or assigns shall have patent for such invention or discovery under the conditions and for the terms specified in this Act; provided, however, that the patent right secured by this Act shall extend to the inventor or discoverer who is a citizen or subject of a foreign state or nation, only:*

*(a) When an alien inventor or discoverer shall be domiciled within the United States at the time when the patent is created, or*

*(b) When the foreign state or nation of which such inventor or discoverer is a citizen or subject grants, either by treaty, convention, agreement, or law, to citizens of the United States, the benefit of patent on substantially the same basis as to its own citizens, or patent protection substantially equal to the protection secured to such foreign inventor or discoverer under this Act or by treaty, or when such foreign state or nation is a party to an international agreement which provides for reciprocity in the granting of patent, by the terms of which agreement the United States may, at its pleasure, become a party thereto. The existence of the reciprocal conditions aforesaid shall be determined by the President of the United States, by proclamations made from time to time, as the purposes of this Act may require.*

WHEREAS, The object of this proposed revision is not to curtail the privileges of authors and inventors, but rather to define the same in such manner as to secure the objects for which the Copyright, Patent and Trade-mark Laws were enacted, therefore, be it

*Resolved*, That these laws shall further define the scope and limitations of copyright, patent and trade-mark privileges by adding to these laws, in appropriate sections, the following definitions and restrictions:

*No patent shall subsist for: (a) Inventions, the applications of which are contrary to the laws, to public morals, or to the public health.*

*(b) Inventions relating to articles of food, or medicines, as also substances prepared by chemical processes in so far as the inventions do not relate to a definite process or apparatus for the preparation thereof.*

*(c) Coined names, names of articles of manufacture, names of games or puzzles, names of substances, names of products, or names of medicines.*

*Section.—If the invention relates to a process for the production of a new substance, all substances of the same chemical composition are considered as having been made by the patented process until proof to the contrary is given to the Commissioner of Patents.*

and finally,

WHEREAS, Progress in medical science, and in the arts of pharmacy and drug-therapy is dependent upon the practice of educated and trained pharmacists and physicians who alone are competent to pass upon the novelty and usefulness of alleged pharmacal and therapeutical inventions, therefore, be it

*Resolved, That we favor an amendment to the patent law requiring the Commissioner of Patents to submit all applications for patents relating to medicines and dietetics to the Committee of Revision of the United States Pharmacopoeia for approval before granting the same.*

*The U. S. P. Revision Committee being decennially appointed by a Convention representing the professional and educational interests of pharmacy and medicine, as well as the interests of the entire drug trade of the United States, is representative and impartial and excellently organized to exercise judicial functions. To it is entrusted the revision and publication of the Pharmacopoeia which by the Food and Drugs Act of June 30, 1906, has become "the Law of the land." The present Committee consists of fifty-one members.*

## REPORT OF COMMITTEE ON QUALITY OF MEDICINAL PRODUCTS.*

(*Continued from p. 311, March, 1917.*)

CHERRY JUICE

Sp. gr. 1.055 Alcohol; 11.72%; Residue 19 %; 10 Cc. = 0.4 Cc. Decinormal KOH.

Sp. gr. 1.007 Alcohol; 23.04%; Residue 8.5%; 10 Cc. = 0.7 Cc. Decinormal KOH.

A variety of products have been offered under this title differing much from the standard of lots offered before the war.

1. Deeper red color, little cherry flavor. Sp. gr. 1.007, 14.8% alcohol, only 6% residue, very acid, 1 Cc. required 1.9 Cc. of decinormal alkali. Usually requires 0.3 to 0.4 Cc.

2. Alcohol 20%. Residue 20.7%. Sp. gr. 1.058. 1 Cc. requires 0.8 Cc. decinormal alkali.

CHERRY JUICE, MALAGA: Sp. gr. 1.058. Alcohol 20%. Residue 20.79%. 1 Cc. = 0.8 Cc. decinormal alkali.

CHERRY JUICE, CALIF.: Sp. gr. 1.058. Alcohol 19.72%. Residue 20.7%. 1 Cc. = 0.9 decinormal alkali. Evidently California Malaga Wine. E. L. PATCH.

CHROMIUM SULPHATE: It is difficult to obtain a product readily soluble in water. Several lots were rejected which were very slowly soluble or almost insoluble. H. ENGELHARDT.

CINCHONA: Of nineteen samples 3 assayed below 4% of ether soluble alkaloids. Three samples of red cinchona all assayed over 5% total alkaloids. H. ENGELHARDT.

The high price and scarcity of Cinchona Bark has this year brought upon the market offers of several spurious articles. One of these is genuine Cinchona, but a very low grade of the pale bark of Equador, which, even at its best, cannot meet the present alkaloidal standard. Another, a very thick woody bark, without bitter taste and entirely wanting in alkaloids. It appears to belong to a genus related to Cinchona. Two others, also of related genera and devoid of quinine, were imported from Columbia. H. H. RUSBY.

Quality has been poor. Of fifteen samples two contained half a percent of ether soluble alkaloids or less, one 0.84%, six between 1% and 2%, two between 2% and 3%, four above 5%, the highest 6.4%. W. L. SCOVILLE.

COCA: Five samples examined, 2 rejected. The three accepted assayed—0.88%, 0.94%, 0.97%. H. ENGELHARDT.

COLCHICUM ROOT: 0.24% instead of U. S. P. standard of 0.35%, 0.26%, 0.35%, 0.36%. Ash 2.2% to 2.8%. E. L. PATCH.

COLCHICUM SEED: Three samples assayed 0.605, 0.445, 0.445, respectively. H. ENGELHARDT.

* Read before Scientific Section, A. Ph. A., Atlantic City meeting, 1916. Dr. H. H. Rusby stated that a portion of the preliminary part of this report had been taken from that of a like committee of the New York State Pharmaceutical Association, and the Committee desired that due credit be given.

CORIANDER: Great difficulties have been encountered during the year in getting Coriander sufficiently clean. There is a remarkable tendency for this drug to contain not only various weed seeds in considerable amount, but many little hard, stonelike pellets of dirt, adding largely to the ash percentage. H. H. RUSBY.

COTO: A large number of broker's samples of Coto and Para Coto have reached me for an opinion during the year. Not one of them was genuine, although most of them were closely related to the genuine drug. Probably some six or seven different barks were represented in the collection. H. H. RUSBY.

CRAMP BARK: The folly of taking the action that was at one time recommended to the Revision Committee of the Pharmacopoeia of defining this drug as the bark of *Acer spicatum*, on the ground that genuine Cramp Bark could not be obtained, has been demonstrated by the appearance in the market of rather abundant supplies of genuine *Viburnum opulus*.

H. H. RUSBY.

CUBEB: The oleoresin in six samples varied from 14% to 20.52%. H. ENGELHARDT.

CUDBEAR: The scarcity at the present time apparently has induced some dealers to put a drug on the market which is far inferior in coloring power. We also noticed that the color produced by some recent shipments had a decidedly yellowish red tint instead of the dark characteristic bluish red color. H. ENGELHARDT.

CRESYLIC ACID: Much of that in the market is dark in color and deficient in solubility. A fair grade can be secured. W. L. SCOVILLE.

CRESOL: Price greatly advanced and product inferior.

1. Sp. gr. 1.028 (low) not soluble in 60 parts of water.
2. Sp. gr. 1.034 partially soluble in 60 parts of water.
3. Sp. gr. 1.034 partially soluble in 60 parts of water. Not completely soluble in 120 parts of water.
4. Sp. gr. 1.038 partially soluble in 60 parts of water.
5. Sp. gr. 1.038 partially soluble in 60 parts of water.

E. L. PATCH.

CUMMIN SEED: This drug is imported in larger amounts than any other of the umbelliferous fruits. The amount annually imported could hardly be credited by the ordinary pharmacist. It is subject to considerable impurity in the form of sand or earth, and there has been considerable discussion as to what was the proper percentage to be allowed. A decision on this question has not been reached. H. H. RUSBY.

DANDELION ROOT: Three bags, 310 lbs., shipped from Philadelphia to New York consisted substantially of chicory. *Pharmaceutical Era.*

ELM BARK, POWDERED

1. Microscopic examination O. K. Made thick mucilage..... 13% ash.
2. Microscopic examination O. K. Made thick mucilage..... 9% ash.
3. Microscopic examination showed foreign starch..... 15% ash.

E. L. PATCH.

EMULSION COD LIVER OIL: Of seven samples labeled U. S. P. the oil contents varied from 18.2% to 45.6%, the standard being 43% by weight. The oil obtained from the low percentage product was not pure Cod Liver Oil. IND. B. H.

ETHER U. S. P. 1890: Ether may contain peroxides and acetones as impurities.

PHARM. WEEKBLAD P. 3.

FENNEL: A great amount of fennel of very poor quality has arrived during the past year and has mostly found its way into the manufacture of veterinary remedies. It would seem as though large quantities of the drug have been stored up of so poor quality that the market would not take them at ordinary times, and have now been shipped, owing to the fact that there is so great a scarcity that buyers will be glad to get them, a supposition which has been abundantly verified.

H. H. RUSBY.

FLUIDEXTRACT VARIATIONS: Complaint is made that manufacturers add foreign color and inert extractive to fluidextracts to give them a dark appearance and heavy body. Some makers add just so much caramel and so much glucose to every lot of fluidextract. Others take pains to market light colored products only. This explains why N. F. preparations made from different makes of fluidextracts by retail pharmacists vary materially in character.

N. A. R. D. JOURN.

If there is truth in the above assertions it is a serious indictment and should be thoroughly investigated. We cannot believe that any reputable manufacturer so sophisticates his fluidextracts. E. L. PATCH.

GENTIAN ROOT: Most of the Gentian received has been of good quality, but one shipment consisted wholly of the rhizome part, so that it was abnormally fibrous and weak in odor and taste. This shipment was also of a pale gray color, probably due to its not having been thrown into heaps and allowed to ferment, an operation which develops not only the reddish brown color but also the peculiar odor of the drug. H. H. RUSBY.

GINGER, JAMAICA: Several lots tested unusually high. 8%, 9.5%, 7.5%, 10.25%, 7.7%, 6.5%, 7% of alcoholic extract. It often runs as low as 4 to 5%. E. L. PATCH.

GLYCERIN: One lot contained a minute trace of arsenic, one lot had a low sp. gr. 1.247. Usually 1.25. Substitutes for glycerin are being offered which consist principally of invert sugar, a mixture of levulose and dextrose 81.5%, ash 0.025%, water 18.475%. They may give sweetness and density to preparations, but cannot offer the solvent and preservative power of glycerin. E. L. PATCH.

A product is being largely sold as a substitute for glycerin. It is not a true substitute. It does not have the solvent powers or therapeutical action of glycerin. Several lots of glycerin contained glucose. *N. Y. Commercial.*

GUAIAC: Only one out of three samples of guaiac answered the requirements of the pharmacopoeia in regard to alcohol solubility and ash. H. ENGELHARDT.

One sample was worthless, one contained 63.4% of resin soluble in alcohol and four from 80% to 91.25%. W. L. SCOVILLE.

GUARANA: One sample assayed 4.32% Caffeine. W. L. SCOVILLE.

HELLEBORE, AMERICAN: Advantage has been taken of the complication of meanings for this name, to practice jugglery. One set of hellebores belong to the genus Veratrum, another to Helleborus. One of the latter is known as "Christmas Rose." An article is then imported under the last mentioned name, sold as "Hellebore," because it is a synonym, and finally appears as "Veratrum" because Hellebore is one of the synonyms of the latter drug. H. H. RUSBY.

HOREHOUND: Spurious articles have continued to arrive. One of them that has several times been offered is Ballota nigra, often known as "Black Horehound" but which should never be offered as Horehound. H. H. RUSBY.

HYDRASTIS: Five samples contained from 2.23% to 3.7% hydrastine. One 5.5%. W. L. SCOVILLE.

HYDROGEN DIOXIDE: One lot contained excess of residue 0.300 in 100 Cc. Consisted mostly of sodium chloride with traces of silica, sodium sulphate and magnesium sulphate. E. L. PATCH.

HYOSCYAMUS: Lot 1. By U. S. P. process "A" 0.0344. Extracting with alcohol 2 volumes water 1 volume evaporating to extract and proceed in usual way "B" 0.0488%.
Lot 2. "A" 0.0574%. "B" 0.063%.
Lot 3, marked henbane proved to be belladonna.
U. S. P. method only—0.0867%, 0.0402%, 0.062%, 0.0485%, 0.048%, 0.051%, 0.017%. E. L. PATCH.

Of twenty-four samples fifteen were rejected. The other five assayed from 0.08 to 0.12. H. ENGELHARDT.

IPECAC: Of fourteen samples four were deficient, one assaying as low as 0.0875%. H. ENGELHARDT.

2.427% alkaloids, 1.656%, 1.85%, 1.98%, 2.07%. E. L. PATCH.

The sudden demand for emetine showed an influence on this drug. Five samples were offered which contained no alkaloid and one only 0.015%. Ten others yielded from 1.91% total alkaloid with 1.13% emetine to 2.68% total with 1.91% emetine. The proportion of emetine in the total alkaloids of the ten lots ranged from 45% to 85%. W. L. SCOVILLE.

This drug has suffered more sophistication than any other. The only explanation appears to be the excessive demand for it from the war zone. A number of different spurious articles not of the same genus, besides one that is, have been offered. The native Brazilian name of ipecac is "Poaya," but this is also a general name for roots used as emetics. These include several other

species of Cephaelis, several species of Calceolacia (Ionidium) and *Richardia scabra*, all of which have appeared, besides a species of Heteropterys. H. H. RUSBY.

IPOMOEA ORIZABENSIS: The recognition of this root by the B. P. as a legitimate source of scammony resin has led to a complicated state of affairs. There is now a legitimate use for it so that it cannot be excluded when offered under its own name. Once admitted, it is very difficult to know what is done with it, and its appearance as, or mixed with powdered Jalap, is to be expected and has occurred. One of the names under which this is offered is "Raiz de Canaigre" although this name properly belongs to *Rumex hymenosepalus*. H. H. RUSBY.

IRON BY HYDROGEN: One sample contained only 60% iron. W. L. SCOVILLE.

| | | | | | |
|---|---|---|---|---|---|
| JALAP: | Total resin..... | 6.45% | Soluble in ether..... | 0.8 % | Ash. |
| | Total resin..... | 6.87% | Soluble in ether..... | 0.62% | |
| | Total resin..... | 5.09% | Soluble in ether..... | 0.54% | 3.4% |
| | Total resin..... | 8.95% | Soluble in ether..... | 0.8 % | 5.2% |
| | Total resin..... | 9.7 % | Soluble in ether..... | 1.25% | 4.2% |
| | Total resin..... | 6.04% | Soluble in ether..... | 0.59% | |
| | Total resin..... | 6.75% | Soluble in ether..... | 0.8 % | |

E. L. PATCH.

Lots in 1915 ran poorly but quality improved markedly in 1916. Of 10 samples during last of 1915, five contained less than 6% resin, three between 6% and 7%, one 7.29%, one 10.21%. In 1916 lowest 8.5%, highest 11.05%. W. L. SCOVILLE.

KAMALA: One sample showed 16.43% ash, sufficient for rejection. W. L. SCOVILLE.

KOLA: Of eight samples three assayed below 1.5% caffeine. H. ENGELHARDT.

Two samples 1.79% and 1.94% caffeine. W. L. SCOVILLE.

LARD, BENZOINATED: Of seventy-five samples thirty were not standard.

NO. DAKOTA EXP. STATION.

LIME: Commercial may contain 50% of magnesia with iron and other impurities.

JOURNAL A. PH. A.

LIME, CHLORINATED: 23% to 25% available chlorine. 30.07%, 35.7%, 14.6%.

E. L. PATCH.

LUPULIN: Twelve samples were examined. Five were insufficiently soluble in ether.

H. ENGELHARDT.

Fourteen samples gave 8% to 44.8% ash. Three were below 10% and three between 10% and 15%. W. L. SCOVILLE.

MANGANESE OXIDE (BLACK): Several shipments were rejected on account of assaying below the U. S. P. standard. They assayed from 60% to 61% of $MnO_2$.

H. ENGELHARDT.

MATICO: Although the firm stand of the Department has resulted in the appearance of free supplies of the genuine article, it must be said that the spurious forms have not altogether ceased their appearance. H. H. RUSBY.

MERCURY: Several lots were rejected because they contained a large proportion of amalgams of other metals. H. ENGELHARDT.

METHYLENE BLUE: One sample yielded 49.6% ash and was rejected. It can easily be obtained yielding less than 1% ash. W. L. SCOVILLE.

MOLASSES: Five samples contained from 30% to 44% of glucose.

MASS. S. B. OF H.

MUSTARD: No subject of the year has caused so much difficulty and annoyance as to quality offered, this statement applying to both black and white varieties. Supplies of genuine, of good quality have been so scanty as to have stimulated the export of thousands of tons of related seeds from India and China. The variety has been bewildering, and it has been found utterly impossible to identify the different individuals. Some have a certain amount of pungency while others have none. Under these circumstances samples of all or nearly all of the varieties have been planted and are being identified as rapidly as they flower and fruit. H. H. RUSBY.

MYRRH: The alcohol solubility of six samples varied from 27.4% to 38.6%. Ash from 3.8% to 7.6%. H. ENGELHARDT.

OIL, CASSIA: A lot was rejected because it contained both lead and rosin.

H. ENGELHARDT.

OIL, COD LIVER: Turbid. Disagreeable odor. Refractive index 1.4744 at 23.5° C. Should be 1.4774. Rejected.

Clear. Disagreeable odor. Refractive index 1.4751 at 25.5° C. Should be 1.4767. Rejected.
E. L. PATCH.

It has been difficult to obtain cod liver oil of satisfactory quality. Most samples are dark in color and unpleasant in taste. It is impossible to insist on a high grade oil at the present time and secure supplies. W. L. SCOVILLE.

OIL, ETHEREAL: Considerable trouble was experienced with this preparation. There are products on the market which seem to be nothing but the refuse in the manufacture of ether and are completely devoid of sulphuric acid esters. A test for the presence of the latter should be made by saponifying the oil with caustic alkali under pressure and identifying the alkali sulphate in the product of saponification. It would also be advisable to give directions for keeping the oil. Several shipments were rejected on account of dark color, unfitting it for making Hoffman's Anodyne. H. ENGELHARDT.

OIL OF JUNIPER BERRIES: A shipment consisted largely of oil of turpentine. It is to be regretted that neither the present nor the forthcoming pharmacopoeia have tests to detect any appreciable adulteration of oil of juniper berries with oil of turpentine. H. ENGELHARDT.

OIL, LEMON: Both the natural and concentrated are frequently low in citral contents.
W. L. SCOVILLE.

OIL, LINSEED: Three out of sixteen samples were adulterated. IND. B. OF H.

MINERAL OIL: The situation is confusing. Quite a number of oils on the market do not meet the tests recommended by the forthcoming Pharmacopoeia, because they contain easily carbonizable matter and in some cases sulphuretted compounds. Detailed experiments made in our laboratory showed that with the exception of the California heavy liquid petrolatum no other liquid petrolatum on the market, even that of Russian origin, meets the sulphuric-nitric acid test as proposed recently for adoption in the Pharmacopoeia IX.
H. ENGELHARDT.

Sp. gr. 0.854 at 25° C. fluorescence. With $H_2SO_4$ very dark.
Sp. gr. 0.850 fluorescence. With $H_2SO_4$ yellow, reddish and black on heating.
Sp. gr. 0.850, colorless, odorless, tasteless. With $H_2SO_4$.
Yellow, becoming brown with heat.
Sp. gr. 0.855, colorless, Yellow becoming brown.
Sp. gr. 0.854, colorless, Yellow becoming brown.
Sp. gr. 0.855, colorless, Yellow, becoming slight color with $H_2SO_4$ and heat.
Sp. gr. 0.858, colorless, odorless, nearly tasteless, very dark with $H_2SO_4$ and heat.
Sp. gr. 0.858, colorless, odorless, tasteless, with $H_2SO_4$ and heat, nearly colorless. With PbO test O. K. E. L. PATCH.

Much offered had a kerosene odor and taste and some darkened markedly with sulphuric acid.
W. L. SCOVILLE.

OIL, PENNYROYAL: Samples answered all tests but that of sp. gr. Two lots were over 0.940 (U. S. P. 0.920 to 0.935). E. L. PATCH.

OIL, SANDALWOOD, GERMAN: A mixture of W. I. Oil, from *Amyris balsamifera* and Copaiba. O. P. & D. REPORTER.

OIL, THYME: There is a scarcity of oil of thyme. Several shipments which exhibited a decided red color, were rejected. H. ENGELHARDT.

Received a shipment of oil of thyme that contained more carvacol than thymol and was not satisfactory for manufacture of thymol. NAT. ANIL. & CHEM. CO.

OIL, TURPENTINE: Sp. gr. 0.8435. Refractive index 1.4622 at 20° C. (Range of other lots 1.4703 to 1.4712). Contained a notable quantity of kerosene. E. L. PATCH.

OILS—VOLATILE: Artificial substitutes for the natural oils are increasing. Oils of coriander, rose, neroli and cinnamon (Ceylon) are mostly of the artificial variety. It is needless to say that they are not as satisfactory as the natural oils, but the latter are not always obtainable. W. L. SCOVILLE.

OLEORESIN MALEFERN: Varies considerably in the amount of crude filicin. Four samples contained 19.7%, 21.8%, 22%, 24.3% determined by Fromme's method. Good Oleoresin of Malefern should contain 27% to 28%. It would be advisable that the U. S. P. give an assay process for this product. H. ENGELHARDT.

PAPAIN: Has run better than formerly. Two lots were worthless and three others less than half strength, but 60% of the samples offered were satisfactory. W. L. SCOVILLE.

PARSLEY SEED: Eight lots yielded from 11% to 29% of oleoresin. H. ENGELHARDT.

PAW PAW JUICE: Owing to the persistency of the Department in rejecting adulterated shipments, in spite of all clamor, this article is now universally of good quality. H. H. RUSBY.

PHENOL: Has been troublesome. High grade lots are scarce. Most of that offered is dark in color, has a foreign odor and a low melting point. W. L. SCOVILLE.

PINKROOT: This drug, which a few years ago was very scarce, except in a highly adulterated form, is now quite abundant and of reliable quality, although adulterants and substitutes have still to be carefully looked for. It is a tribute to the care and persistence of the Food and Drug Department that collectors have finally been induced to supply the genuine drug. H. H. RUSBY.

| | | | | |
|---|---|---|---|---|
| PODOPHYLLIN: | Alcohol soluble..... | 99 % | Ash..... | 0.4% |
| | Alcohol soluble..... | 99.6% | Ash..... | 1.2% |
| | Alcohol soluble..... | 99.8% | Ash..... | 0.4% |

E. L. PATCH.

POPPY SEED: One of the most curious conditions has arisen in regard to Poppy Seed. It was claimed that an occasional henbane seed had been found in this drug and it was learned that the Department had adopted a ruling that one henbane seed to fifteen thousand poppy seeds should be the limit of acceptance. On this basis a person would require to eat nine pounds of seed to get a single medicinal dose of henbane seed. It developed that the Department had been compelled to adopt this standard for the reason that it was the standard for export in some European countries and our international agreements will not permit us to receive from another country anything, the exportation of which is forbidden by that country. H. H. RUSBY.

POTASSIUM SALTS: The growing scarcity of potassium salts has led to technical salts being offered as medicinal quality. The technical salts usually contain large proportions of chloride and are below the U. S. P. or N. F. standards. Watchfulness has become necessary in their purchase. W. L. SCOVILLE.

POTASSIUM BROMIDE: Sample labeled Potassium Bromide was sodium bromide and contained a large excess of moisture—12%. DRUG TOPICS.

RENNIN has almost disappeared from the market, and samples offered are usually low in strength. W. L. SCOVILLE.

RICE POWDERS: Of sixteen samples, so labeled, two were genuine, and only six contained rice starch at all. Thirteen contained talc, two bismuth subnitrate, three chalk, and seven zinc oxide. C. H. LAWALL.

SAFFLOWER: This drug has been imported on an unprecedented scale during the past year. Shipments have aggregated many tons. This result is doubtless due to the scarcity of dyestuffs. The claim is made that it is largely used in the making of a color preparation that is falsely credited to genuine saffron. H. H. RUSBY.

SAGE: The general quality of the shipments of sage received during the past year has been very poor indeed. Almost all of it was stemmy. In some cases the stems reached eighty-five or ninety percent of the whole. In addition, much was badly cured and of a blackish color. One of the most important developments in relation to this drug has been the offering of considerable quantities of Sideritis theaezans as sage, which it closely resembles in appearance, though not in odor or taste. The proper name of this article is Greek Tea, which name must not be confounded with Greek sage. H. H. RUSBY.

SANDALWOOD: For the first time since my connection with the Bureau of Chemistry, shipments of so-called West Indian Sandalwood, *Amyris balsamifera* L., have appeared upon the market. Since they were offered under their real name of "West Indian Sandalwood" their acceptance was obligatory, but they bear little resemblance in odor or taste to genuine sandalwood, although trimmed in the same way and of similar appearance. I have not learned what disposition was made of them. H. H. RUSBY.

SARSAPARILLA, MEXICAN: A number of shipments received which presented a most peculiar appearance, unlike anything before seen. They were said to have been collected in the state of Vera Cruz from new land which had never before yielded any Sarsaparilla to commerce. The roots were exceedingly thick and woody, of a black color and with a very thin bark which was brittle and tended to crumble or scale off. The whole root had a sort of dead appearance and

was dry and tasteless. Not only was there a serious doubt as to its pertaining to the plant *Smilax medica*, but even if so it must have been rejected on the ground of inferior quality.

H. H. RUSBY.

SCOPOLA: The shortage in Belladonna Root has caused much advantage to be taken of suitable opportunities for using Scopola in plasters and its importation has thus increased. Its supply has been deficient and, in view of the stressful conditions, the Department has permitted the use of the Japanese variety for making an extract, provided the latter be brought up to the proper alkaloidal strength. H. H. RUSBY.

SENNA: The supply of Senna has been very scanty, great inconvenience, especially to the manufacturers of proprietary articles, having thus resulted. Many shipments have been of decidedly poor quality, so poor that in an ordinary year they would doubtless have been rejected. Owing to the scarcity referred to, the limits have been strained to the utmost in admitting low grades. Several shipments of spurious senna have been rejected and many broker's samples, representing several species of Cassia have reached me. A sample of "Kolinji" was received with the information that it was being used as an adulterant of India Senna. Kolinji is a native Indian name for orange leaves, but these leaves were identified as those of *Cracca villosa*. I have never seen them in Senna. H. H. RUSBY.

SENNA SIFTINGS: When the Department proposed to reject senna siftings containing a larger percentage of foreign matter than was allowed in senna itself, there was a most violent protest. It was declared to be impossible to secure senna siftings of that quality and impossible to so clean them after arrival here as to cause them to meet the standard. The Department was very firm and even went so far as to clean several bales and thereby demonstrate the practicability of the process. As a result we now have senna siftings which are, if anything, superior in activity to the whole leaf. H. H. RUSBY.

SODIUM CARBONATE, DRIED: N. F. 1916. U. S. P. 1890. 73% $Na_2CO_3$. 7 lots assayed 81.6%, 82.4%, 82.1%, 77.4%, 78.4%, 75.3%, 95.3%. E. L. PATCH.

SODIUM GLYCEROPHOSPHATE: Fine, white, crystalline form, freely soluble, 1 gramme ignited gave 0.430 residue. So-called 75% ignited gave 0.450 residue. E. L. PATCH.

SOLUTION CRESOL COMPOUND: A sample of this preparation was rejected because it contained 20% water. It had probably been manufactured with soft soap. H. ENGELHARDT.

SOLUTION CITRATE OF IRON: A good deal of trouble was experienced with this preparation. Some shipments arrived in a gelatinous condition, while others did not form clear solutions. H. ENGELHARDT.

SPIRIT ANISE: Two lots 69% and 70% of official. MASS. ST. B. OF H.

SPIRIT CAMPHOR: Samples found only 50% of official. MASS. ST. B. OF H.

80%, 70%, 60%, 57%, 20%, 18% of official contents of Camphor. One—33% alcohol. N. A. R. D.

SPIRIT NITROUS ETHER: Mess. Kebler, Palkin and Ewing, Washington, D. C., conclude that the Spirit of Nitrous Ether U. S. P. will keep well for six months under all ordinary conditions, with no marked deterioration in eighteen months kept with ordinary precautions. Compare these findings with report of exhaustive experiments conducted by the Massachusetts State Board of Health published in our last year's report.

SPIRIT PEPPERMINT: Four samples ranged from 22% to 84% of official. MASS. ST. B. OF H.

SQUILLS: Powdered Squill containing starch has occasionally been found in the market and an occurrence of the past year may explain this fact.

There was offered for import at New York a good sized shipment of whole bulbs of squill, undried and capable of germinating when planted. They pertain to the amaryllis groups. Upon microscopical examination, these bulbs were found entirely wanting in needle shaped crystals and to contain an abundance of starch. In spite of most strenuous protests as to their genuineness, they were rejected. It is not improbable that it was an admixture of these bulbs with genuine squill that is the origin of the starch-bearing powder referred to. H. H. RUSBY.

STRAMONIUM LEAVES: Four samples were of good quality. H. ENGELHARDT.

0.38%, 0.4%. E. L. PATCH.

Five lots varied from 0.27% to 0.57% alkaloids. W. L. SCOVILLE.

SUMBUL: Advanced in price from eight cents to three dollars. The *Journ. of Am. Chem*

*Soc.* Feb. 16 states that the market product is not true ferula sumbul, but the root of an undetermined umbelliferous plant coming from central and northern Europe through Moscow.

E. L. PATCH.

TRITICUM: Genuine doggrass has become increasingly scarce throughout the year, until at length the genuine article appears to be unobtainable. Almost all that which was offered at the port of New York was spurious. This spurious doggrass is of two or three species. All are of very pale color and hard rather than soft and gummy like true doggrass. One is very hard and woody with little or no starch, while another is not so hard and is very starchy.

H. H. RUSBY.

UNICORN ROOT: We continue to find much confusion existing as to the application of the term "Unicorn Root" and "False Unicorn Root." It should be remembered that true Unicorn root is Aletris and that false Unicorn root is Chamaelirium. When labeled otherwise the Government is obliged to declare them misbranded. H. H. RUSBY.

VALERIAN: Much Japanese Valerian Root has been offered for import and has finally been accepted as genuine. There is still some doubt as to whether the Japanese plant is *Valeriana officinalis* or a distinct species; but it is of excellent odor and taste, very clean and is in reality superior for medicinal purposes to the European form. It is of a very dark color.

H. H. RUSBY.

VIBURNUM PRUNIFOLIUM: Attention may well be called here to the ill-advised endeavor of the Medical Council of the A. M. A. to discredit this valuable drug. The recorded experiments on the results of which this action is based, would be ludicrous if the matter were not of such serious importance. Undoubtedly there have been many wild claims made for the therapeutic activity of this bark on the part of manufacturers of proprietary preparations, but it is equally true that medical practice has been full of cases in which life has been saved by its judicious use. H. H. RUSBY.

WEIGHTS: Of 10,921 troy weights 659 were accurate, 6335 light, 1990 heavy and 1828 condemned. Of 2030 metric weights 311 were accurate, 1040 light, 617 heavy, 62 condemned. Of 871 balances 441 only were in good condition. *Pharmaceutical Era.*

WITCH HAZEL DISTILLED EXTRACT: One lot only 9% of alcohol.

DRUG TOPICS.

ZINC SALTS: Some samples showed a large excess of metallic impurity.

W. L. SCOVILLE.

## ADDENDA.

Many samples of adulterated aspirin have been found on the market. A sample of fluidextract of cinchona, yellow, with a deficiency of approximately 25% of cinchona alkaloids, was referred to the courts and the jury found the defendants guilty. The trial was full of technicalities which showed the great necessity of adhering strictly to the details outlined in the methods of analysis. To illustrate: One step of the analysis reads as follows: "Draw off and reject the lower aqueous layer, and then transfer the ether layer into a tared beaker." Great stress was laid on the fact that the Government analyst transferred the ether to a tared beaker by pouring it out of the top of a separatory funnel, rather than drawing it off from the bottom. The defendants intimated that such a procedure on the part of the chemist invalidated the method sufficiently to warrant a new trial or appealing the case. Attention is called to this fact showing the necessity of using language in the Pharmacopoeia which is susceptible of only one construction.

On referring to page 579 will be found the following statement: "The final operation must always be the collection of the free alkaloid by the use of a portion of the immiscible solvent, drawing this off into a beaker, rinsing with a small portion of the solvent to prevent possible loss." It was maintained that general directions govern in case there is a conflict with same in the specific method of analysis. The court refused to rule on the matter and left it for the jury to take into consideration in arriving at its decision.

Attention might also be called briefly to the work of the Post Office Department in eliminating frauds from the mail. The Post Office Department has continued its activities in denying the use of the mails to those engaged in medicinal schemes to defraud the consumer. The Department has taken the position that it is impossible to diagnose disease through the mails by means of filling out a so-called symptom blank. It has usually been found that the parties so

operating do not conduct their business in good faith as is shown by the fact that they will send medicines to what appear from the symptom blanks to be most grave diseases, as well as to those which so far as it is able to judge from the symptom blank are in perfectly good health. Appeals to the courts from the Postmaster General's decisions in the issuing of fraud orders have been overruled by the courts, thus sustaining the position taken in these matters. The medicines usually employed are of the most simple, although they are frequently represented as possessing some mysterious occult healing properties.

Recent examinations by the chemists engaged in the enforcement of the Food and Drugs Act of shipments of benzoic acid offered for entry into the United States have revealed that much of it is adulterated with boric acid. This adulteration is probably due to the high price which benzoic acid now commands owing to its scarcity. It is quoted at about eleven dollars per pound, while the price of high grade boric acid is only twenty to twenty-five cents per pound. As some of the shipments of benzoic acid have been found to contain as much as thirty percent boric acid, the enormous profit in this form of adulteration is apparent.

The officials in charge of the enforcement of the Food and Drugs act are of the opinion that benzoic acid containing boric acid is adulterated, and that shipments of such a mixture offered for entry into the United States should be denied admission under the Food and Drugs Act.

L. F. KEBLER.

There has recently arrived at the Port of New York a shipment of India Senna heavily adulterated with *Cracca villosa*, the first case of the kind that has ever come under my observation.

H. H. RUSBY.

ADEPS LANAE: Much has been said about the adulteration of Adeps Lanae with Petrolatum and Resin. The addition of Petrolatum alone lowers the saponification number, but there seems to be a range of ten in lots that meet the U. S. P. requirements. Any gross adulteration with Petrolatum would reduce the saponification number so as to require the addition of rosin or some other body to prevent it. The addition of rosin is discovered by the U. S. P. test of solution in ether, addition of phenolphthalein solution and addition of normal KOH solution. This is Test No. 5 of table given below. It is also plainly indicated by applying a modification of the U. S. P. test with cupric acetate solution as given under guaiac. This is Test No. 6 of table below.

| | | 1. % of water. | 2. Color. | 3. Odor. | 4. Saponification No. | 5. | 6. |
|---|---|---|---|---|---|---|---|
| 1 | Anhydrous | None | Light amber | Nearly odorless | 90.57 | O. K. | Slight yellow color |
| 2 | Anhydrous | None | light amber | slight odor | 95.4 | 0.1 Cc. N Sol. KOH | slight yellowish green |
| 3 | Anhydrous | None | dark amber | perceptible | 89.37 | 0.1 Cc. N Sol. KOH | slight yellowish green |
| 4 | Anhydrous | None | dark amber | perceptible | 100.4 | 0.1 Cc. N Sol. KOH | slight yellowish green |
| 5 | 90% No. 2<br>6% Rosin<br>4% Petrolatum | .. | .... | perceptible | 94.86 | 0.6 Cc. N Sol. KOH | decided green |
| 6 | Hydrous | 26% | light amber | nearly odorless | 68.2 | O. K. | slight yellow |
| 7 | Hydrous | 30% | light amber | slight | 67.0 | O. K. | slight yellowish green |
| 8 | Hydrous | 26.6% | light amber | slight | 65.6 | O. K. | slight yellowish green |
| 9 | Hydrous | 28% | light amber | slight | 70.4 | O. K. | slight yellowish green |

E. L. PATCH.

Since the marked drop in the prices of the bromides, there has been a quadruple increase in their use in some quarters.

E. L. PATCH.

COMMITTEE { EDGAR L. PATCH, LYMAN F. KEBLER, H. H. RUSBY, H. ENGELHARDT

# COUNCIL BUSINESS

## A. PH. A. COUNCIL LETTER NO. 12.

PHILADELPHIA, PA., December 29, 1916.

To the Members of the Council:

*Motion No. 16* (*Substitute Motion for Motion No. 12*) and *No. 19* (*Resolution Relative to the late Martin I. Wilbert*), have each received a majority of affirmative votes.

The nomination of Prof. Wilbur L. Scoville as Chairman of the Committee on National Formulary (C. L. No. 4, 8) has been withdrawn by the mover of the motion, with the consent of the second.

The nomination of Prof. Bernard Fantus as a member of the Committee on National Formulary (C. L. No. 4, 8) has been withdrawn by the mover of the motion, with the consent of the second.

*Motion No. 20* (*Election of Members*). The following applications for membership have been presented:

No. 51. B. P. Edmonds, 1539 Jefferson Ave., Detroit, Mich., rec. by A. A. Wheeler and R. A. Hugill.

No. 52. Rudolph Wirth, 158 West 99th St., New York, N. Y., rec. by Robt. C. Pursell and Irvin S. Zeluff.

No. 53. Paul Frederick Dickens, Hospital Steward, U. S. N., U. S. Naval Training Station, San Francisco, Cal., rec. by A. A. Lee and Wm. B. Day.

No. 54. Frank C. Starr, 41 John Street, New York, N. Y., rec. by Geo. T. Riefflin, and Ernst Stauffen.

No. 55. Harry J. Borst, 3229 E. 10th St., Indianapolis, Ind., rec. by M. K. Pruyn and Francis E. Bibbins.

No. 56. Oscar Haarer, 200 E. Liberty St., Ann Arbor, Mich., rec. by Ottmar Eberbach and J. O. Schlotterbeck.

No. 57. Raymond Daniel Kinsey, U. S. Public Health Service, Washington, D. C., rec. by A. M. Roehrig and Edward Rogers.

No. 58. Dra. Sarah Bustillo y Alberdi, 125 Industria St., Havana, Cuba, rec. by Jose P. Alacan and Jose Guillermo Diaz.

No. 59. H. B. Schreurs, Hospital Steward, U. S. Navy, Naval Hospital, Guam, P. I., rec. by J. W. England and E. G. Eberle.

No. 60. Sumney Bird Higgins, 3718 Westminster St., St. Louis, Mo., rec. by Charles H. LaWall and Leroy Forman.

No. 61. Ellis E. Faulkner, Delton, Mich., rec. by Leonard A. Seltzer and A. Alton Wheeler.

No. 62. Edward Davy, 21 E. 12th Ave., Columbus, Ohio, rec. by C. A. Dye and Azor Thurston.

No. 63. Sister Theresa, St. John's Hospital, Springfield, Ill., rec. by Wm. B. Day and E. N. Gathercoal.

No. 64. Macy S. Hight, 32 Adams Ave., W., Detroit, Mich., rec. by Leonard A. Seltzer and A. Alton Wheeler.

No. 65. George T. Snyder, 879 Mack Ave., Detroit, Mich., rec. by Leonard A. Seltzer and A. Alton Wheeler.

No. 66. Harry Landis Thompson, 710 North 26th St., Lincoln, Neb., rec. by Rufus A. Lyman and Elsie Day.

No. 67. Herschel Megaw, 132 E. Capitol St., Washington, D. C. (Pharmacist U. S. Public Health Service), rec. by Frank L. Gibson and E. B. Scott.

J. W. ENGLAND,
*Secretary.*

415 N. 33RD STREET, PHILA., PA.

### A CORRECTION.

In March issue, p. 319, Council Letter No. 13 was numbered Council Letter No. 12. A misunderstanding of the publishers of the value of these numbers caused them also to number Council Letter No. 6 as No. 11; No. 7 as No. 10; No. 8 as No. 9, and No. 9 as No. 8; No. 10 as No. 6 and No. 11 as No. 7. Fortunately the dates were not changed but the letters do not run consecutively.

## A. PH. A. COUNCIL LETTER NO. 14.

PHILADELPHIA, PA., February 6, 1917.

To the Members of the Council:

*Motion No. 21* (*Election of Members; applications Nos. 68 to 75 inclusive*) has received a majority of affirmative votes.

(Cancel application No. 76 of C. L. No. 13. Application was sent in error with check; payment of dues of member intended.)

Chairman Hopp has named the following Committee on M. I. Wilbert Resolutions

(C. L. No. 11): S. L. Hilton, Dr. F. E. Stewart and H. V. Arny.

*Motion No. 22 (Election of Members).* The following applications for membership have been presented:

No. 76. Robert Franklin Ligan, 159 S. Front St., Steelton, Pa., rec. by W. B. Goodyear and Chas. H. LaWall.

No. 77. William F. Morgan, Phar. D., 136 Meserole Ave., Brooklyn, N. Y., rec. by Joseph L. Mayer and Frank L. McCartney.

No. 78. May Agnes O'Connor, M.A., 19 Church St., White Plains, N. Y., rec. by Jeannot Hostmann and H. V. Arny.

No. 79. Charles A. Loring, 145 Front St., New York, N. Y., rec. by Frank L. McCartney and Turner F. Currens.

No. 80. John D. F. Dreyer, 41 John St., New York, N. Y., rec. by Frank L. McCartney and Jos. L. Turner.

No. 81. Geo. E. Fitzsimmons, 1045 Lex. Ave., New York, N. Y., rec. by G. Hostmann and Jacob Diner.

No. 82. William E. Gifford, 203 Fulton St., New York, N. Y., rec. by Thos. F. Main and Frank L. McCartney.

No. 83. Wilbur R. Eastburn, 1237 S. Peach St., Phila., Pa., rec. by Robert P. Fischelis and F. E. Stewart.

No. 84. Norbert R. Mueller, Room 459, Chemistry Building, University of Wisconsin, Madison, Wis., rec. by Edward Kremers and H. A. Langenhan.

No. 85. Leo Harold Shapiro, 1021 W. Harrison St., Chicago, Ill., rec. by Wm. B. Day and E. N. Gathercoal.

No. 86. Jacob S. Segura, 117 West Main St., New Iberia, La., rec. by R. F. Grace, N. O., and Christian Schertz, N. O.

No. 87. George Baylies Gunn, Main St., Uxbridge, Mass., rec. by T. J. Bradley and W. B. Day.

No. 88. Edmund Sheldon Thatcher, 334 Ogden Ave., Milwaukee, Wis., rec. by W. B. Day and E. N. Gathercoal.

No. 89. Earl F. Shippy, 5601 N. Crawford Ave., Chicago, Ill., rec. by Geo. F. Vanpell and Wm. B. Day.

No. 90. Paul Freund, 309 Chartres St., New Orleans, La., rec. by R. F. Grace, N. O., and Philip Asher.

No. 91. Arthur Paul Azlin, Water Valley, Miss., rec. by H. M. Faser and W. B. Day.

No. 92. Charles Dewitt Pigott, Flowers, Miss., rec. by H. M. Faser and W. B. Day.

No. 93. John Ellis Pigott, Flowers, Miss., rec. by H. M. Faser and W. B. Day.

No. 94. C. Emerson Whittington, Gloster, Miss., rec. by H. M. Faser and W. B. Day.

No. 95. Benjamin W. Altstadt, 2248 N. Central Park Ave., Chicago, Ill., rec. by A. J. Winters and Wm. B. Day.

No. 96. Abe H. Geisenberger, Jr., Natchez, Miss., rec. by H. M. Faser and W. B. Day.

No. 97. Harry Whitehouse, Johnson City, Tenn., rec. by J. O. Burge, Ph.G., and E. A. Ruddiman.

No. 98. Ernest John Schott, Cor. Broadway & 8th Ave., Nashville, Tenn., rec. by J. O. Burge and E. A. Ruddiman.

No. 99. William Patrick Winter, 423 8th Ave., S., Nashville, Tenn., rec. by J. O. Burge and E. A. Ruddiman.

No. 100. Edward Baird McGrew, Shelbyville, Tenn., rec. by J. O. Burge and E. A. Ruddiman.

No. 101. Henry Hermann Humma, 2431 S. Dearborn St., Chicago, Ill., rec. by M. A. Miner and C. W. Patterson.

No. 102. John Wesley Stokes, 501–503 Mass. Ave., Indianapolis, Ind., rec. by Frank R. Eldred and Francis E. Bibbins.

J. W. ENGLAND,
*Secretary of the Council.*

415 N. 33RD ST.

## A. PH. A. COUNCIL LETTER NO. 15.

PHILADELPHIA, PA., February 9, 1917.

To the Members of the Council:

The following Tentative Program for the Sixty-fifth Annual Meeting of the Association, to be held at Indianapolis, during the week of August 27 to September 1, is submitted by the Committee on Program, the General Secretary, Secretary of the Council and the Local Secretary:

*Monday, August 27.*

9.30 A.M.—National Association Boards of Pharmacy.

2.00 P.M.—National Association Boards of Pharmacy.

8.00 P.M.—National Association Boards of Pharmacy.

*Tuesday, August 28.*

9.30 A.M.—National Association Boards of Pharmacy.
American Conference of Pharmaceutical Faculties.
2.00 P.M.—American Conference of Pharmaceutical Faculties.
Excursions to Industrial Plants.
7.00 P.M.—Meeting of the Council.
8.00 P.M.—First General Session.
Meeting of Committee on Nominations.

*Wednesday, August 29.*

9.30 A.M.—Scientific Section.
Commercial Section.
Women's Section.
2.00 P.M.—Practical Pharmacy and Dispensing (Pharmacopoeias, Formularies and Standards).
Section on Education and Legislation.
4.00 P.M.—House of Delegates.
7.00 P.M.—Meeting of the Council.
8.30 P.M.—President's Reception.

*Thursday, August 30.*

9.30 A.M.—Scientific Section.
Commercial Section.
Practical Pharmacy and Dispensing (Pharmacopoeias, Formularies and Standards).
12.30 P.M.—Luncheons of College Alumni.
2.30 P.M.—Second General Session.
4.00 P.M.—House of Delegates.
7.00 P.M.—Meeting of the Council.

*Friday, August 31.*

9.30 A.M.—Scientific Section.
Section on Education and Legislation.
Historical Section.
2.00 P.M.—Practical Pharmacy and Dispensing (Pharmacopoeias, Formularies and Standards).
Women's Section.
Joint Session of Section on Education and Legislation, A. C. P. F. and N. A. B. P.
4.00 P.M.—Meeting of the Council (Reorganization.)

*Saturday, September 1.*

9.00 A.M.—Meeting of the Council.
10.00 A.M.—Final General Session.

Comments and suggestions are invited.

J. W. ENGLAND,
*Secretary of the Council.*

415 N. 33RD ST.

## MEMORIAL ADOPTED BY THE COMMISSION ON PROPRIETARY MEDICINES ON THE DEATH OF MARTIN I. WILBERT.

The members of the Commission on Proprietary Medicines of the American Pharmaceutical Association record their sense of sorrow and profound loss, from the unexpected and sudden decease of their esteemed co-worker and friend,

MARTIN I. WILBERT.

A member of the "Commission" since it was first formed by our Association, he gave close attention and study to the problems incident to the manufacture, advertising, sale, and use of package medicines of a proprietary character, and worked faithfully with his fellow members to formulate and secure the adoption of principles designed to safeguard the public and place the business upon a proper and acceptable basis.

An honest, earnest, and continuous student of the reciprocal relations between pharmacy, medicine and the public, Mr. Wilbert's all too short life was devoted to work for the common good.

His death will be sincerely mourned by his wide circle of personal acquaintances among the active workers in both medicine and pharmacy and by all those who knew him through his "Digest of Comments on the Pharmacopoeia, 8th Revision, and National Formulary, 3d Revision," published in collaboration with Murray Galt Motter, which is a monument to his memory and an evidence of his wide reading and continuous industry.

Lamenting our own loss we deeply sympathize with Mrs. Wilbert in her bereavement and the great sorrow that has thereby entered her life.

COMMISSION ON PROPRIETARY MEDICINES OF
THE AMERICAN PHARMACEUTICAL ASSOCIATION.

# EDITORIAL NOTES

**Editor:** E. G. EBERLE, Bourse Building, Philadelphia, Pa.
**Committee on Publication:** J. W. ENGLAND, *Chairman;* G. M. BERINGER, CASWELL A. MAYO, H. B. MASON, and the Editor-in-Chief of the JOURNAL, General Secretary, Treasurer and Reporter on the Progress of Pharmacy, *ex-officio.*
Office of Publication, 253 Bourse Building, Philadelphia, Pa.

## PUBLICATION OF INFORMATION ON DETAINED IMPORTS OF FOOD AND DRUGS AT PORTS OF ENTRY.

The Bureau of Chemistry, Department of Agriculture, gave a public hearing in the building of the Bureau of Chemistry at Washington, D. C., on Tuesday, March 20, 1917, at 10 A.M., to consider the question of publishing data on the detention of food and drugs offered for import at ports of entry. Dr. Carl L. Alsberg presided.

What the Department wished particularly to ascertain was the opinion of the trade upon the desirability of publishing such information, and the form of such publication, and also, as to whether or not such publication would injure a consignee importing goods from abroad who has had no opportunity of inspecting the same prior to their arrival and detention at ports of entry.

Representatives were present from the National Wholesale Druggists' Association, the Philadelphia Drug Exchange, the Drug Trade Section of the New York Board of Trade and Transportation, the National Association of Retail Druggists, and a number of national food organizations. Briefs from various trade bodies were filed, also.

After an extended discussion of the subject from many angles, the consensus of opinion expressed seemed to be:

(1) That it was undesirable to publish information relative to detained shipments unless the shipments gave evidence of intentional and wilful violations of the law, when the facts should be made public. (2) That the Bureau of Chemistry should coöperate with a Committee on Standards to be named by the various national food and drug interests with the view of framing tentative standards and tests for imported food and drugs. It was shown that there was precedent for such coöperation in Government work, *e. g.*, Seed Department of Bureau of Plant Industry. (3) That all the methods and tests used by the Bureau of Chemistry should be made public so that importers could know in advance of ordering goods what standards to specify. (4) That the sampling and methods of examination of drugs should be made uniform at all the ports of entry. (5) That the Bureau of Chemistry coöperate with the food and drug trade in securing an amendment of the Federal Food and Drugs Act giving the importers the right of appeal to a court, preferably the Board of General Appraisers.

If practicable standards are framed and proper publicity is given them so that the foreign exporter and the domestic importer shall have full knowledge of the same, it was felt that better conditions would surely result and that there would be little or no necessity for publishing information relative to detained shipments.

Dr. Carl Alsberg, Chief of the Bureau of Chemistry, would not, of course, commit himself as to the attitude of his department on these suggestions, but stated that he would give them careful consideration, and that he wanted the assistance and coöperation of the trade represented by the food and drug industries. He will decide later what can be done.

J. W. E.

## THE JONES-REED AMENDMENT.

The Jones-Reed Amendment was passed as a "rider" on the annual post-office appropriation bill and reads:

"That no letter, postal card, circular, newspaper, pamphlet, or publication of any kind containing any advertisement of spirituous, vinous, malted, fermented, or other intoxicating liquors of any kind, or containing a solicitation of an order or orders for said liquors, or any of them, shall be deposited in or carried by the mails of the United States, or be delivered by any postmaster or letter carrier, when addressed or directed to any person, firm, corporation, or association, or other addressee, at any place or point in any State or Territory of the United States at which it is by the law in force in the State or Territory at that time

unlawful to advertise or solicit orders for such liquors, or any of them, respectively.

"If the publisher of any newspaper or other publication or the agent of such publisher, or if any dealer in such liquors or his agent, shall knowingly deposit or cause to be deposited, or shall knowingly send or cause to be sent, anything to be conveyed or delivered by mail in violation of the provisions of this section, or shall knowingly deliver or cause to be delivered by mail anything herein forbidden to be carried by mail, shall be fined not more than $1,000 or imprisoned not more than six months, or both; and for any subsequent offense shall be imprisoned not more than one year. Any person violating any provision of this section may be tried and punished, either in the district in which the unlawful matter or publication was mailed or to which it was carried by mail for delivery, according to direction thereon, or in which it was caused to be delivered by mail to the person to whom it was addressed. Whoever shall order, purchase, or cause intoxicating liquors to be transported in interstate commerce, except for scientific, sacramental, medicinal, and mechanical purposes, into any State or Territory, the laws of which State or Territory prohibit the manufacture or sale therein of intoxicating liquors for beverage purposes, shall be punished as aforesaid: Provided, That nothing herein shall authorize the shipment of liquor into any State contrary to the laws of such State: Provided, further, That the Postmaster General is hereby authorized and directed to make public from time to time in suitable bulletins or public notices the names of States in which it is unlawful to advertise or solicit orders for such liquors."

This is to become effective July 1. An effort was made before adjournment of Congress by officials of the N. A. R. D. and N. W. D. A. to enact the Moon-Pomerene bill which reads:

"That the provisions of section five of the bill (H. R. 19410) prohibiting the mailing of a letter, postal card, circular, newspaper, pamphlet, or publication of any kind containing any advertisement of spirituous, vinous, malted, fermented, or other intoxicating liquor of any kind, or containing a solicitation of an order or orders for such liquors, or any of them, shall not apply to letters, circulars, catalogues, or price-lists when addressed to a manufacturer or dealer in medicinal or toilet preparations, flavoring extracts, or chemicals relating to such business."

A circular letter of the N. W. D. A. states that at the extra session of Congress vigorous efforts will be made, with every prospect of success, to perfect the Jones-Reed provision before it becomes effective. Even in the event of the failure of the movement, however, it is believed the federal authorities will so construe the Jones-Reed provision as to exempt the operations of the trade, including the use of the mails and the shipment of alcohol, wines, etc. In its present form the amendment is ambiguous and inconsistent in that it specifically permits interstate shipments of alcohol and wines to be made for trade purposes, while at the same time it prohibits the transmission in the mails of catalogues, price-lists and correspondence relating thereto. It is a settled rule of statutory construction that all parts of ambiguous statutes must be considered together and must receive a reasonable interpretation; hence, while it is manifestly preferable that the law should be clarified by supplemental enactment, there is no reason to believe that, in default of modification, its provisions will be construed to the embarrassment of drug manufacturer, jobber or retailer.

## WE BOAST OF A GREAT CIVILIZATION, BUT THIS IS JUSTIFIED ONLY WITHIN LIMITS.

"Science more nearly dominates the world than at any time in the past. Learning permeates the masses more deeply, but credulity and ignorance are widely prevalent. In this country of 100 millions, there are thousands whose greed impedes the progress of the whole, tens of thousands whose ignorance retards their own growth, and other thousands who live by crime and procreate their kind to feed on generations to come. We have our schools, colleges, and universities, while our almshouses, insane asylums and penal institutions are full. In our cities we see the palatial homes of the very rich, the splendid temples of trade and commerce, the slums of want and poverty, and the homes, both rich and squalid, of vice and crime. No nation in this condition can be given a clean bill of health. Our hilltops are illuminated by the light of knowledge, but our valleys are covered by the clouds of ignorance. We have not emerged from the shadows of the dark ages."—(Victor C. Vaughan, *International Journal of Surgery*, March, 1917.)

## LETTER TO THE EDITOR.

DEAR SIR:

I have read with interest your editorial in the February number of the JOURNAL in which you favorably comment on the papers presented by Messrs. F. E. Stewart and J. W. England at the meeting of the Philadelphia branch, January 17, 1917, on the subject of the revision of the United States Patent Laws and urge your readers to correspond or confer with their senators and representatives for the purpose of securing their support in the effort to do away with the product patent in medicinals.

It seems to me that the small group of men in the drug and chemical trade who are striving with might and main to keep this subject alive permit their hunger for a share of the business controlled by a few foreign owners of product patents in this country to blind their eyes to the needs of our American chemical and pharmaceutical manufacturers.

Without the product patent there would be no further development of American chemical or pharmaceutical industry. What concern would be willing to invest thousands—yes, hundreds of thousands—of dollars in research work if they could not secure full protection for at least a limited period of time on the occasional product of this expensive research?

There is no protection whatever in a process patent only because only through a spy system in your competitor's factory or laboratory could you possibly tell whether your process was being infringed upon or not, and what decent self-respecting American manufacturer wants to do business that way?

The kind of American industry which the present product patent law very wisely and properly discourages is that of the pirate variety, which you can be certain would flourish abundantly under the process patent only. Immediately a valuable discovery was made public under a process patent dozens of concerns would begin tearing it to pieces seeking a way to get around the patent in order to obtain profit for themselves out of the other fellow's brain and initiative. The result would be that men would not take out patents but would strive to practice their invention in secret, and if successful would have for themselves a perpetual instead of only a seventeen-year franchise, as the present product patent contract with the government provides, and the public would be the loser.

I cannot in this letter undertake to answer all the arguments advanced by Messrs. Stewart and England, but they can be easily controverted and in due time will be.

The purpose of this letter, which I ask you to be good enough to publish in the April JOURNAL, is simply to let your readers know that there are two sides to this product patent question and that those who favor the product patent expect to make themselves heard. I am sure you will give us the same prompt publicity given those who oppose it.

In closing I wish to give for the information of your readers the following resolution adopted by the American Drug Manufacturers' Association (then the National Association of Manufacturers of Medicinal Products) at its annual meeting in New York in February, 1916:

"WHEREAS, The Constitution of the United States of America gives Congress the power 'to promote the progress of science and useful arts by securing for a limited time to authors and inventors the exclusive right to their writings and discoveries,' and

"WHEREAS, In no field is discovery of greater importance to the welfare and health of the people of the United States than in the field of medicine, pharmacy and surgery, therefore be it

"*Resolved*, That this Association is opposed to any amendment of the Patent, Trade-mark and Copyright Laws of the United States of America that shall directly or indirectly effect discrimination against inventions and discoveries in chemistry, pharmacy, medicine or surgery; fully believing that the undue exploitation of the American public by foreign inventors can be remedied by measures that will not discourage American chemical, pharmacal and biological research workers from endeavoring to discover products that will take the place of products that America must now depend upon Europe for; and processes for making other substances we are now obliged to do without because of conditions we cannot control."

This Association numbers in its membership all the important medicinal, chemical, pharmaceutical, biological and surgical dressing and plaster manufacturers of the country.

Very truly yours,

CHAS. J. LYNN, *President.*

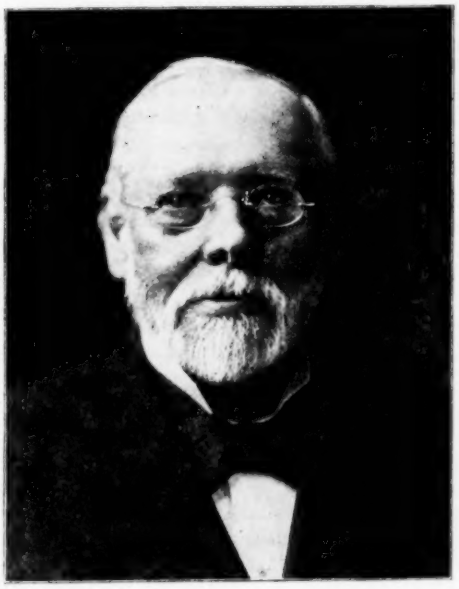
Indianapolis, March 20, 1917. AMERICAN DRUG MANUFACTURERS' ASSOCIATION.

## OBITUARY.

### CONRAD LEWIS DIEHL.
1840—1917.

Professor Diehl came to this country in 1851 at the age of eleven years, his father being a political refugee from Germany. He was born in Neustadt A. H. in Rhenish Bavaria. He was the eldest son of Therese Phillipine Rossi and Conrad Lewis Diehl.

Lewis and his brother entered school at Oakfield Academy, near St. Louis, but he left school permanently in 1854 and joined his father in Philadelphia, obtaining a position with R. and G. A. Wright, perfumers and drug sundrymen, where he remained until 1857. In 1858 he began an apprenticeship with an excellent pharmacist who practiced medicine, Dr. John R. Angney, of Philadelphia, and while there he attended the Philadelphia College of Pharmacy. He next accepted a position with Emilius Herwig, of Fifth and Brown Streets, Philadelphia, and became acquainted with German pharmacy. Subsequently he entered the employ of John Wyeth and Brother, where he worked in the laboratory until August, 1862, when he enlisted in the 15th Regiment of Pennsylvania Volunteer Cavalry.



C. LEWIS DIEHL

Twenty-second President of the American Pharmaceutical Association.

For thirty-eight years Reporter on the Progress of Pharmacy; for twenty-eight years identified with the work on the National Formulary.

He served gallantly in this Regiment until the Battle of Stone River, when he was severely wounded. After convalescence he obtained the position of assistant chemist in the United States Army Laboratory of Philadelphia, remaining there from April 1863, to January 1865. He and Professor Maisch became associated and the intimate friendship never ceased until the death of Professor Maisch.

At the close of the Civil War, Professor Diehl accepted a position with Ernst George Mueller and subsequently became a manufacturer of chemicals in the laboratory of Bender, Mahla and Company, remaining there until July 1865, when he became manager of the Louisville Chemical Works, which position he held until December 1868.

In June 1869, he purchased a drug store in Louisville at First and Walnut Streets, and in August 1874, he opened a new store at the corner of Third Avenue and Broadway which he conducted until 1903.

In 1863 he read his first paper on Oleum Aethereum at the meeting of the American Pharmaceutical Association and was elected a member. In 1866 he was appointed Chairman of the Committee on the Progress of Pharmacy and in 1872 he made a report on the progress of pharmacy, which was presented at the Richmond meeting in 1873, and it was in this year that he began his services as Reporter on the Progress of Pharmacy. He held this position nearly forty years, resigning in 1915. In 1890, owing to ill health, he declined re-election, but again took the office in 1895. In 1874 he was elevated to the highest position in the gift of the Association, being elected its President.

Professor Diehl might properly be called the founder of the Louisville College of Pharmacy. He was elected its first President in 1870 and was re-elected annually until 1881, when he declined the position. He was made Professor of Pharmacy in this College in 1871 and served until 1916. There was an interim in his services from 1881 to 1883.

Professor Diehl was a member of the Committee of Revision of the United States Pharmacopoeia first in 1890 and was elected to the Committee at the Conventions of 1900 and 1910, a period of twenty-seven years of continuous service.

He was also Chairman of the Committee of Revision of the National Formulary (second

revision) published in 1896, and he continued in this position until 1917. He was able to serve both Committees of the National standard authorities and was of great service in preventing duplication of processes and formulas in both books.

In his own State, Professor Diehl was a member of the first Board of Pharmacy of Kentucky in 1874, on which he remained until 1886. In 1897 he again accepted appointment to the Board and was a member until the time of his death. He was President of the Kentucky Pharmaceutical Association and he was regarded as a tower of strength not only in his own State, but in the country of his adoption.

In reviewing his life, one must be struck by the great capacity for work which he possessed. He was a great student; he soon acquired a mastery of the English language and one of his great services to pharmacy was rendered through his ability to abstract from various foreign and domestic journals the salient points and pith of the various papers. This he rendered in language easily understood by readers of the Proceedings. This great gift, though appreciated by many of the members of the Association, was overlooked by many others who did not realize the difficulties of the abstracter.

He died in the City of Louisville on Sunday, March 25, 1917, and thus has passed away one of the most devoted, earnest, and faithful members of the profession of pharmacy in America.

He is survived by his wife, and three daughters, Mrs. Emily Frank, Miss Eleanor Diehl and Miss Jennie Diehl.

JOSEPH P. REMINGTON.

## IN MEMORY OF PROF. C. LEWIS DIEHL.

JOHN F. HANCOCK.

C. Lewis Diehl was an educator and an uplifter of pharmacy.

We were friends for many years. Each of us joined the American Pharmaceutical Association in 1863 at the annual meeting held in the City of Baltimore. He was a man of great mental ability and industry. In his early life he had some special advantages in laboratory work.

He was the Soul of Honor and his master work for many years as reporter of the Progress of Pharmacy of the American Pharmaceutical Association was a favorable introduction to the large membership of that organization.

Previous to 1872, when the Report depended upon a committee, the results had not been satisfactory and a committee was appointed in 1872, consisting of Wm. Procter, Jr., Ed. Squibb and E. H. Sargent to consider better means to secure nore satisfactory reports. The Committee presented the following at the Richmond meeting in 1873:

"RESOLVED, That after careful consideration followed by a full consultation with Mr. Diehl who had voluntarily consented to perform that service in the previous year, with credit to himself and satisfaction to the officers and members of the Association, they proposed the name of C. Lewis Diehl with the proviso, that he be paid an annual salary for his laborious services."

He was the first Reporter on the Progress of Pharmacy elected by the Association and proved so eminently satisfactory in the performance of his duties that no other member had the courage to aspire to the position until age and infirm health made him unequal to the task.

The annual reports on the Progress of Pharmacy were in themselves worth more to each member who was interested in the progress of pharmacy than the annual dues. This I have often suggested to those whom I have endeavored to induce to join the Association. These reports alone will stand as a record of his ability and should endear his memory to every member of the American Pharmaceutical Association.

Though he had become too feeble to take an active part in the meetings, he was an annual attendant and his popularity was manifested at the Atlantic City meeting last year by the hearty applause he received when he entered the room where the first general session was being held.

JOSEPH L. LEMBERGER.

Surely the body of the American Pharmaceutical Association is being invaded: One by one, the last roll call is answered, this time by one to whom a large majority of the membership were endeared for the valuable service rendered by him. For over fifty years we have met at our annual gatherings, and until in recent years, when physical infirmity prevented, the Association was the recipient of his herculean labor, his good work as the Reporter of the Progress of Pharmacy for thirty-seven years. This will ever be a monument to the skilful, energetic and intelligent effort of Professor Conrad Lewis Diehl. From early boyhood, to advanced age, his was an

interesting career. He was a good citizen, a diligent workman, and at the call of his country a loyal patriot.

In common with many of the members who shared his friendship and congenial fellowship, we feel his death as the personal loss of a friend, and join in sincere sympathy for the bereaved family.

JAMES M. GOOD.

The grim reaper has been very busy of late, in gathering to himself our prominent members.

The announcement of the death of our friend and old-time member of the A. Ph. A., although not unexpected, gives each of many of us a day of sadness. Not being personally well known by the younger, active members of the Association, yet they are all well acquainted with his work as Reporter on the Progress of Pharmacy and fully appreciate it. This work, in the form presented by him, we may properly consider completed, and it remains as his monument.

He leaves a host of friends in the A. Ph. A. He was the peer of such men as Maisch, Procter, Parrish and Squibb. He was one with them and of them. He was a connecting link between us and them. We cannot think of him without visions of them standing before us. His last days were those of anxiety and more or less suffering. His death brings rest and peace. We say: "Well done, good and faithful servant, enter thou into thy reward."

JOHN URI LLOYD.

Your letter, advising me of the death of Professor C. Lewis Diehl is to me exceedingly painful, for more reasons than one. From the time that I became concerned in the American Pharmaceutical Association, Professor Diehl has been to me a companion, not only at the meetings, but in the pleasureable visits we have had between times. He accomplished much in his long service to the Society, and established for himself a monument in the record that he made in the Progress of Pharmacy Section, in the Proceedings, so many years, in fact, I may say, decades. Nor need any one attempt to introduce to your readers the Professor Diehl so well known to all, and especially to one of the "Old Guard," of whom so few are left, of the class that embraced Professor Diehl and myself.

Each recurring year brings to me new vacant places, with accompanying personal heartaches, and when in Atlantic City last fall Professor Diehl and I sat together on the stage, there came to me the sad reflection that within a very short time, we too must be parted. That time has come.

FREDERICK J. WULLING.

I first became acquainted with C. Lewis Diehl in 1885 when I was introduced to him by my good friend and preceptor Prof. P. W. Bedford in New York City. At that time I did not yet have much pharmaceutical information. That accounted for the great respect I immediately gained for Prof. Diehl because of his wide and profound knowledge of pharmacy, which respect, however, I never lost thereafter. A few days of association with him at that time made me resolve to leave nothing undone to acquire at least as extensive an acquaintance with pharmacy as Prof. Diehl had. I remember distinctly having asked him for an estimate of time it would require for me to know as much about pharmacy as he did. He replied saying that it would not take very long to learn as much as he then knew, but that since he had not yet finished his pharmaceutical education and did not expect to finish it until he died, I would have to live a long time to catch up with him. While he said this jokingly, I at once caught the truth of the remarks. I first learned from Prof. Diehl the lesson that our own personal education is never finished, but that we are in a process of constant mental evolution, the degree of development depending upon the earnestness and will-power that we employ.

Not only has Prof. Diehl been an inspiration to many young men just starting out upon pharmaceutical careers, but he has been one of the foremost contributors to everything else that tends toward better and higher standards of pharmacy. He has made for himself an enviable position in the pharmacy of his time. His work on the National Formulary on the U. S. Pharmacopoeia, as teacher, ethical practitioner, Reporter on the Progress of Pharmacy of the A. Ph. A. and pharmaceutical writer has had a deep, profound and affirmative influence upon pharmacy. His gentleness, kindness, forbearance and patience have had an ennobling influence upon all those who had the privilege of his friendship and acquaintance. Pharmacy has sustained a great loss in his demise. The practical and necessary question with us who remain is to win for the calling

such young and new men who have in them the promise and ambition of becoming as efficient, loyal and kind pharmacists and men as C. Lewis Diehl was.

HENRY MILTON WHELPLEY.

The long and useful life work of Professor C. Lewis Diehl in pharmacy is on public record and a matter of common information. I will not dwell on it at this time.

Professor Diehl also had an extended personal acquaintance. This might be expected of one who had been in public pharmaceutical work for more than a half a century. With Professor C. Lewis Diehl, the personal acquaintances were by no means confined to those coming to him in the pharmaceutical eye. It was his personality which won intimate and lasting friendships.

I had the good fortune of becoming personally acquainted with Professor Diehl in 1884 and we met at least annually since that time. He was one of those persons who caused you to feel pleased with each interview. He took a genial view of life and imparted optimism to others. He was always ready to talk about pharmaceutical affairs but never bored you with uninteresting details. He did not go out of his way to criticize others. He was one of those few people who had plenty of time to mind his own business. After a visit with Professor Diehl, you thought all the more of him and also of others who happened to be concerned in the conversation.

The passing of Professor C. Lewis Diehl removes another and very nearly the last of the coterie which included Diehl, Ebert, Maisch, Gordon, Markoe, Searby, and from there extended back to the time of Procter and Parrish.

GEORGE M. BERINGER.

The grim Reaper has exacted heavy toll from the ranks of pharmacy during the last few months. With the decease of C. Lewis Diehl, a former President of the American Pharmaceutical Association, another of the commanding figures, of what could appropriately be termed the first century, of American pharmacy, has crossed to the Great Beyond.

I esteen it as one of the greatest privileges of my pharmaceutical career to have been associated with him and to have enjoyed his friendship. As a member of the Committee on National Formulary, we corresponded on many topics and likewise in the work of the Pharmacopoeial Revision, we were associated on a number of the committees and this also necessitated frequent correspondence.

His letters always gave a keen enjoyment and impressed me with his many great qualifications. They demonstrated the personality of the writer, the mental poise, the high ideals, the clearness of thought and accuracy of expression, the forcefulness tempered with reserve and kindly consideration for the views of others, the earnestness and sincerity of a real friend. He was always accurate and his opinions were concisely and clearly stated and supported by reasons that demonstrated that they were based upon thoughtful consideration.

As a soldier, as an official, as a pharmacist, C. Lewis Diehl always well performed his duty. In his devoted work in behalf of his chosen calling, he sacrificed his personal financial gain that pharmacy might be enriched. The achievements that will survive and commemorate his life are undoubtedly that monumental work—"Abstracts on the Progress of Pharmacy" and the National Formulary.

As an abstractor of the literature of pharmacy and the cognate sciences, he has had no superior. His choice of matter, the completeness, the accuracy, the arrangement were ideal.

The several editions of the National Formulary, prepared under his chairmanship and editorship unquestionably reflect very largely the personal work of Professor Diehl. He carried this work through the several stages of its evolution and without this preliminary and well laid foundation, the National Formulary could not have achieved its present form and legal status.

In recent years, his failing health precluded his undertaking the labors that he loved and to which he had devoted so much of his life and in our conversations and correspondence he not infrequently expressed his regret thereat.

He was well informed on the topics of the times as well as on matters scientific and pharmaceutic and I enjoyed greatly the conversations that we had at the meetings of the A. Ph. A. and on the several visits that he made me. These have added to and materially aided in strengthening those invisible bonds of friendship that bind kindred spirits. I would not miss this opportunity of adding my tribute of appreciation of his work, his worth and character and of expressing the sorrow at the removal of this sincere friend that I so keenly feel.

LEWIS C. HOPP.

In the death of C. Lewis Diehl, American Pharmacy loses one of the few great men left in pharmacy. He was a big man, thorough and conscientious: a man of the highest ideals.

He was one of the pillars of strength in the A. Ph. A. always of good sound judgment. Many times in Council session when knotty questions came up with every one at sea, some one would say, "Diehl, what is your opinion? What do you say?" And in a few words he would clear the atmosphere.

Words are inadequate to express my admiration for Mr. Diehl. I never lost the opportunity of spending a little time with him at each meeting of the Association. To know him was to love him.

J. W. ENGLAND.

Conrad Lewis Diehl will be remembered in American Pharmacy long after many of his contemporaries have been forgotten. His services have been invaluable. For thirty-eight years, he was Reporter on the Progress of Pharmacy and for twenty-eight years he was most actively identified with the work of the Committee on National Formulary. But it was not the number of his years of service alone that made them so worth-while; it was the high, scientific quality of his work, rendered possible by his analytical mind, his well-balanced judgment and his whole-hearted devotion to the profession he loved so well. His work was constructive, never destructive, and his labors for pharmacy will bear fruit through the years to come and be a lasting monument to his memory.

He had the respect and esteem of a troop of friends who can say with Fritz Greene Halleck:

"Green be the turf above thee,
Friend of my better days.
None knew thee but to love thee
None named thee but to praise."

W. B. DAY.

In the death of Professor Diehl, the pharmaceutical profession loses one of its finest representatives and the American Pharmaceutical Association mourns the passing of a leader who gave his time and effort without stint to its cause. As a teacher, state board member, writer, investigator and pharmacist, Conrad Lewis Diehl ranked high, but the beautiful character of the man himself endeared him to all who knew him.

JULIUS A. KOCH.

The news of Prof. Diehl's death comes to me as a great shock. With him the American Pharmaceutical Association and American Pharmacy have lost a most able defender.

I am sure that few of us realize the vast amount of work which Prof. Diehl has been able, in his long and busy life, to accomplish for the good of his chosen profession.

JOHN G. GODDING.

The passing away of Prof. C. Lewis Diehl removes one who has devoted his life untiringly to pharmacy.

His work in the American Pharmaceutical Association will stand as a lasting monument to his memory. Indeed the A. Ph. A. loses one of its most valued members. To me it is the loss of a personal friend.

E. G. EBERLE.

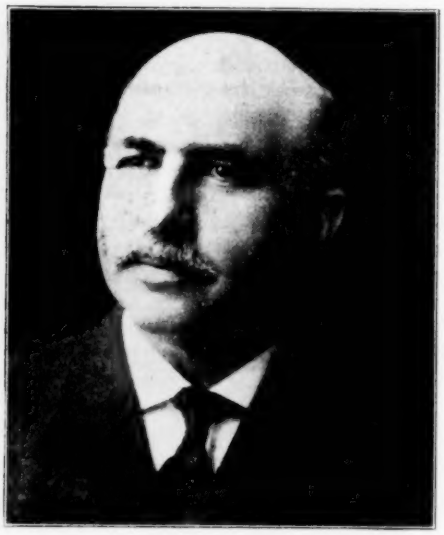
Few members of the American Pharmaceutical Association ever succeeded in winning, to the extent that Professor C. Lewis Diehl did, the love and respect of the membership. What a thronging host of loving reminiscences the memory of him calls up as well as of generous deeds and unselfish sacrifices in behalf of his country and profession. We would not have the time ever come when we should not grieve over the loss of our friends for, while we have them in our hearts, the gap made by their loss is never wholly filled; even after a time when their name is mentioned, we think of them because they are missed from among us.

The American Pharmaceutical Association is better for his having been a member of it and we are fortunate who knew Professor Diehl, remembering not only his companionship but his labors for pharmacy.

## JOSEPH FEIL.

Joseph Feil, of Cleveland, Ohio, and for many years Dean and Professor of the Cleveland School of Pharmacy, died at his home February 3. Joseph Feil received his early education in the schools of Cleveland. After leaving school he worked in a Cleveland wholesale grocery, but soon engaged in the pharmacy of H. Hensch. He came to Philadelphia and also clerked for a time in Towanda, Pa., and was apothecary assistant in the New York Hospital. He attended both the Philadelphia and New York Colleges of Pharmacy. He graduated from the latter institution in 1880.

Returning to Cleveland, he engaged as chemist with Strong, Cobb & Co., and thereafter entered the drug business on his own account. He soon, however, devoted his entire time to teaching and held the professorship of chemistry and physics in the Cleveland School of Pharmacy and was also professor of chemistry in the Medical Department of Wooster University, and instructor



JOSEPH FEIL

in natural sciences in the Cleveland Central High School, a position held by him for thirty years. Professor Feil was very active in the Ohio State Pharmaceutical Association, to the proceedings of which he contributed many valuable papers. He joined the American Pharmaceutical Association in 1885.

Professor Feil was in his sixty-second year, and is survived by his wife, two sons and one daughter.

## ROBERT WALTER WHITE.

Robert W. White, druggist at 56th and Lansdowne Avenue, Philadelphia, was stricken with apoplexy February 19. Mr. White was born in Chambersburg, Pa., February 3, 1864, received his preliminary education in that city and afterward attended Dickinson College, at Carlisle, Pa. Returning to Chambersburg, he became an apprentice in a drug store and afterwards attended the Philadelphia College of Pharmacy, graduating in the class of 1888. After graduation he worked for a time in Lock Haven, after which he returned to Philadelphia and accepted a position with William MacIntyre, where he remained until 1907. Then he opened a drug store on his own account and here he remained in business until the time of his demise. Mr. White was active not only in business but also in association matters, taking particular interest in the Philadelphia Retail Druggists' Association, of which he was president in 1916. Mr. White is survived by his wife, formerly Miss Lillian Shank of Chambersburg, three sisters and three brothers. Interment was made at Chambersburg, under the auspices of the Masonic bodies. Mr. White became a member of the American Pharmaceutical Association in 1911.

## IN MEMORY OF DR. WILLIAM C. ALPERS.

Doctor Alpers was one of the most striking and interesting figures in contemporary pharmacy. He brought to the practice of pharmacy an unusually well-drilled mind, with a broad knowledge of the sciences and a command of English which was all the more remarkable in a man with whom English was a secondary language. His contributions to the Proceedings of the American Pharmaceutical Association were characterized by an unusual combination of scientific knowledge with practical training. He had the faculty of presenting facts in the most interesting manner and his papers were always listened to with interest. He was also endowed with the gift of humor and made an excellent presiding officer at the informal sessions of the Diastase Section. This gift of humor shone out brilliantly in a brief address at the Asheville meeting of the A. Ph. A., in which he voiced the thanks of the Association to the local pharmacists. Doctor Alpers was a man of very strong convictions and having once adopted an opinion he was tenacious in his advocacy of it in spite of the most active opposition. While this quality brought him into frequent conflict of opinion with others, such differences did not necessarily lead to estrangements since the purity of his motives was always unquestioned. He had been constant in his attendance at the meetings of the Association and will be missed by a wide circle of the older members of the Association who knew him well.

CASWELL A. MAYO.

## SOCIETIES AND COLLEGES.

### THE AMERICAN PHARMACEUTICAL ASSOCIATION CONVENES IN INDIANAPOLIS AUGUST 27–SEPTEMBER 1, 1917.

The sixty-fifth annual convention of the American Pharmaceutical Association will be held in Indianapolis, August 27–September 1, and the Claypool Hotel has been selected as headquarters for the Association; Francis E. Bibbins is local secretary.

The American Conference of Pharmaceutical Faculties and the National Association of Boards of Pharmacy will convene August 27 and 28.

The Committee on Transportation will soon announce rates and routes to the convention. Indianapolis is centrally located and therefore a very large attendance is expected; hotel accommodations are ample, and opportunities for visiting places of pharmaceutical and sight-seeing interest will be afforded.

There are many lake resorts nearby and those who desire to extend their visit can arrange their tickets accordingly.

### TO THE MEMBERS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

The Commission on Proprietary Medicines invites a free expression of opinion by members of the Association upon the following questions:

(1) Will the open formula, *i. e.*, publication of the active ingredients on the label, be likely to increase or decrease the sale of proprietary medicines as a whole?

(2) Will the publication of the formula on the label be likely to change the legal responsibility of retail dealers, who have hitherto been declared by the courts not to be responsible for damage resulting from the use of proprietary medicines, concerning the composition of which they were uninformed?

(3) What benefit would the public derive from the publication of the formula of a proprietary medicine on the label?

(4) If the formulas of proprietary medicines are not published, can the public be protected against fraud or injury by a proper system of inspection and analysis?

(5) Instead of the requirement of the publication of all active ingredients as above stated, would it be advisable to require simply a statement of certain potent drugs, or of those deemed to be so active that the purchaser should be informed of their presence?

(6) If you believe the last proposition to be preferable to the publication of the complete formula, what definition would you propose for potent drugs; or, instead of a definition, what list of drugs would you propose for statement?

(7) If you favor neither of the two main propositions above stated, namely, publication of the entire formula, or of potent ingredients only, what are your views as to a law requiring the communication of the active ingredients to some official bureau authorized to pass upon or approve or disapprove preparations offered for sale generally to the public?

(8) If you approve the last proposition, would it be possible to draft a law that would prevent unreasonable condemnation of formulas by the official bureau, or to prevent sectarian prejudice from influencing its determinations? For example, would a board composed of "old school" or regular physicians be inclined to pass or reject a homeopathic remedy for rheumatism upon a statement of its contents?

(9) Should such a bureau be composed of physicians exclusively or should pharmacy be represented in the membership, and to what extent?

(10) Should a bureau charged with the duties above specified be municipal, state or national?

Those interested in knowing what has previously been said by members of the A. Ph. A. upon the above are referred to the issue of the JOURNAL for Dec. 1916. A reprint of this paper will be sent by the Chairman of the Commission, on request.

Address all communications to

J. H. BEAL,
Urbana, Ill.

### IOWA PHARMACEUTICAL ASSOCIATION.

The Iowa Pharmaceutical Association held a mid-winter session February 20 and 21, at Des Moines. It was largely legislative in character and the results were very satisfactory. Governor Harding attended the first session and expressed himself in full sympathy with the purposes of the organization and agreed that the state should recognize and assist in the promotion of work carried on by

the Association. It was decided that an exhibition of military hospital work would be given in conjunction with the program of the annual meeting. This seems indeed a very timely topic and more general attention should be given to this very important subject by all pharmaceutical associations.

An address was made by the Iowa State Insurance Commissioner, Mr. E. H. English, on "The Iowa Insurance Laws." Honorable Lawrence DeGraff, judge of the Iowa district court, and an authority on pharmacal jurisprudence, spoke on "The Druggist's Liability under the Common Law." He contended for the necessity of better educational standards for pharmacists. Hugh Craig, editor of the N. A. R. D. Journal, spoke on "Some Problems of Legislation, National and State," in which he analyzed the various legislative measures now under consideration. While the meeting was primarily a business session, there were also a number of entertainments provided.

BUFFALO COLLEGE OF PHARMACY.

Charles H. Gauger has completed ten years' service as instructor in the pharmacy laboratory of the Buffalo College of Pharmacy. For over seventeen years he has acted as treasurer of the Alumni Association. In recognition of both of these facts the Faculty and the Alumni Association recently tendered him a testimonial dinner. It was given at the Lennox Hotel. A number of ladies were present, including Mrs. Gauger. Thirteen classes of alumni were represented. Among those from out-of-town were Mr. and Mrs. Lee W. Miller, of Niagara Falls, N. Y.

As a souvenir of the occasion the Faculty presented Mr. Gauger with a Dispensatory. So many of those present were friends of long standing that the affair soon resolved itself into a family round table of anecdote and reminiscences. The informality of the occasion was enjoyed by every one present and the freedom from set speeches was also appreciated. Dean Willis G. Gregory presided.

## CHANGES OF ADDRESS.

All changes of address of members should be sent to the General Secretary promptly.

The Association will not be responsible for non-delivery of the Annual Volume or Year Book, or of the JOURNAL unless notice of change of address is received before shipment or mailing.

Both the old and the new address should be given thus:

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Titles or degrees to be used in publications or in the official records should be given, and names should be *plainly* written, or typewritten.

CHANGE OF ADDRESSES SINCE FEBRUARY 18, 1917.

FRAME, A. W.,
From care Merck & Co., Rahway, N. J.
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GORDON, JEAN, MISS,
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To care Mrs. M. E. Affonin, 2752 W. Polk St., Chicago, Ill.

LOUSSAC, Z. J.,
From 107 Front St., Juneau, Alaska.
To Anchorage, Alaska.

HARRIS, S. J.,
From 3131 Washington St., San Francisco, Cal.
To 3032 Washington St., San Francisco, Cal.

STIER, CARL,
From U. S. Quarantine Station, Boston, Mass.
To U. S. Marine Hosp., Baltimore, Md.

WINTERS, A. J.,
From 522 Pleasant St., Oak Park, Ill.
To 605 Humphrey Ave., Oak Park, Ill.

BOTE, L. E.,
From U. S. S. Beale, Philadelphia, Pa.
To U. S. S. Wisconsin, Philadelphia, Pa.

ARMSTRONG, T. C.,
From U. S. Marine Hosp., Chelsea, Mass.
To U. S. Marine Hosp., Vineyard Haven, Mass.

WOOD, FRANK D.,
From 202 Front St., Morgantown, W. Va.
To 505 Beechnut Ave., Morgantown, W. Va.

POCZOS, JOSEPH,
From 301 Hancock Ave., Bridgeport, Conn.
To 419 Hancock Ave., Bridgeport, Conn.

BERGER, LOUIS,
From 470 Lenox Ave., New York, N. Y.
To 79 E. 130th St., New York, N. Y.

HERRON, CHAS. S.,
From care Burrough Bros. Mfg. Co., Baltimore, Md.
To 141 N. 15th St., Philadelphia, Pa.

SADTLER, S. P.,
From N. E. Cor. 10th & Chestnut Sts. Philadelphia, Pa.
To 210 S. 13th St., Philadelphia, Pa.

KOLSCH, HARRY,
From 202 Harrison St., Leadville, Colo.
To 310 Harrison St., Leadville, Colo.

STARWALT, E. J.,
From 1371 12th St., Detroit, Mich.
To 104 Linden St., Detroit, Mich

MOLLET, CHAS. E.,
From 523 Woodford St., Missoula, Mont.
To 412 Plymouth St., Missoula, Mont.

ELLIOTT, F. H.,
From 21 Medford St., Medford, Mass.
To 16 Everett St., Melrose, Mass.

DECEASED SINCE FEBRUARY 18, 1917.

ALPERS, WM. C., 1353 Central Ave., Cleveland, Ohio.

## BOOK NOTICES AND REVIEWS.

*Organic Materia Medica and Pharmacognosy.*—By Lucius E. Sayre, B.S., Ph.M., Dean of the School of Pharmacy; Professor of Materia Medica in the University of Kansas; Member of the Committee of Revision of the United States Pharmacopoeia; Director of Drug Laboratory for the State of Kansas. An introduction to the study of the vegetable kingdom and the vegetable and animal drugs comprising the botanical and physical characteristics, source, constituents, pharmacopoeial preparations, insects injurious to drugs, and pharmacal botany. Fourth edition, revised; 302 illustrations; 606 pages. Price $4.50 net. P. Blakiston's Son & Co., Philadelphia.

The table of contents indicates that the work is divided into four parts, Part I including different forms of classification of drugs, such as therapeutically, structurally and according to prominent physical properties, especially the odor and taste. This part includes a list of inorganic drugs and of the newer remedies. Part II includes a description of organic drugs of the vegetable and animal kingdoms arranged according to natural orders and has a chapter on drug assay processes. Part III is devoted to insects injurious to drugs. Part IV discusses powdered drugs, reagents and chemical methods of demonstrating the nature of cell walls and cell contents.

This revision contains many improvements over the previous editions of Professor Sayre's work. Especially should be noted the omission of the rather long and highly technical histological descriptions in connection with the botanical drugs. This omission makes the general description of the drug much more readable to the average student of materia medica. The mention made of the action and uses of the drug is well presented, being neither too extensive nor a mere listing of the therapeutic groups to which the drug belongs.

The matter relating to the commercial source of the drug is much to be preferred to the old style mention of the habitat of the plant.

Unfortunately, Professor Sayre has not given the same standing to all of the N. F. drugs. Some of them receive the same style of heading and about as much description as the U. S. P. drugs, while others are classed with the unofficials and the fact that they are N. F. is hardly indicated. Surely since the National Formulary is now recognized as a standard in materia medica, the N. F. drugs should each receive the same rank, even though this rank is somewhat lower than the U. S. P. drugs, and they should not be classed with the unofficials.

A few errors, typographical and otherwise, have been noted, though some errors cannot be avoided in a work of so large a scope, even with the utmost care. There was particularly noted on page 340 the omission of the last syllable of "Methylis" in the term "Methylis Salicylas;" on page 343, the "r" should be eliminated from "Ebenarceae;" on page 413, the term "Colocynthidis Pulpa" should be "Colocynthis."

On the whole, the text seems to be quite free from errors and this revision no doubt will maintain the high standard as a materia medica text-book held by its predecessors.

E. N. GATHERCOAL.

## JOURNAL ANNOUNCEMENTS.

*Subscriptions:* Annual subscriptions in advance, including postage: United States and Mexico, $4.00; Canada, $4.35; foreign countries, $4.50. Single copies, 35 cents. Remittances should be made payable to Treasurer H. M. Whelpley, but mailed to JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, Easton, Pa., or 253 Bourse Building, Philadelphia, Pa. Under the rules of the Post Office the JOURNAL can be regularly mailed only to bona-fide paid subscribers.

*Requests for Back and Missing Numbers:* Requests for back and missing numbers should be sent to the Editor. Claims will not be allowed if sufficient notice has not been given of change of address, and in no case if received later than sixty days from date of issue. Notice of change of address should give old and new address.

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Further information will gladly be furnished by any of the officers of the Association and members.

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## SHOW YOUR INTEREST IN PHARMACY.

For several months past a request has appeared in the JOURNAL that members indicate whether they desire a cut of the insignia of the Association with name "Member" above, as appended, for their Prescription Blanks. A sufficient number of members have signified their interest and therefore these cuts may now be had by addressing the JOURNAL Office as below.

The cost of single type-cut, including postage, is fifteen cents; when two are ordered at the same time, twenty-eight cents. **The charge is simply to cover cost and postage.**

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